R 9200-1.1

TRAFFIC(U.S.A.)

1601 Connecticut Avenue N.W., Washington, D.C. 20009 Telephone: (202) 797-7901 Cable: PANDAFUND Telex: 64505

TRAFFIC (USA) REPORT ON THE WORLD TRADE IN CROCODILIAN PRODUCTS

before the

SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION
HOUSE SUBCOMMITTEE ON MERCHANT MARINE FISHERIES

July 16, 1979

presented by

Nicole Duplaix
Director of TRAFFIC(USA)

Testimony No. 2

WORLD WILDLIFE FUND-U.S.

TRAFFIC (U.S.A.)—Trade Records Analysis of Flora and Fauna in Commerce—is a scientific information-gathering program monitoring trade in wildlife, plants, and their products. It is funded by World Wildlife Fund-U.S.

Funded by
WORLD WILDLIFE FUND-U.S.

TRAFFIC (USA)
1601 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20009
CABLE: PANDAFUND TELEX: 64505
TELEPHONE: (202) 797-7901

July 16, 1979

TRAFFIC (USA) REPORT ON THE WORLD TRADE IN CROCODILIAN PRODUCTS.

before the

SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION
HOUSE SUBCOMMITTE ON MERCHANT MARINE FISHERIES

Presented by Nicole Duplaix, Director of TRAFFIC (USA)

TRAFFIC (USA) is a scientific, information gathering agency monitoring the trade in endangered and commercially exploited species of fauna and flora. We have reviewed the existing data on the U.S. trade of Crocodilian (including alligator) hides and skins prior to and after placing the American alligator on the Endangered Species list in 1973. Import figures for most foreign countries importing crocodilian products are also given.

During the early 1970s, the U.S. was one of the major importers, exporters and re-exporters of crocodilian products. An average of 125,000 live Caiman species, 32,000 sides (pieces), and 11,000 leather products were imported into the United States in 1970 and again in 1971. From 1970 to 1972, the U.S. supplied Japan with 16.3% of its crocodilian skins and 35.7% of its leather compared to 5.3% skins and 4.8% leather from 1974 to 1976, after the American alligator was placed on the Endangered Species list (Table 1). It is likely that most of these exports to Japan were American alligator skins due to the immediate drop in Japan imports from the U.S. following the listing of the American alligator as endangered in 1973.

The number of crocodilian products imported into the United States has decreased considerably since the early 1970s (Table 2).[1] In 1978, 14,053 skins, 13,164 pieces, 76 pounds, and 14,079 square feet of crocodilian articles were exported from the United States.[2] Of this total, only 325 farmed American alligator hides were exported, 323 to Japan and 2 hides to France. The rest were re-exported Caiman crocodylus skins and hides originally imported from Guyana, Suriname, Bolivia, and Paraguay. The major exports were made to Italy, Switzerland, West Germany, France, and Hong Kong.(Table 3).

Currently the major importers of crocodilian products are the United States, Japan, Italy, France, West Germany, Switzerland, the United Kingdom and Hong Kong (Table 3 and 4). ESSA proposes to exclude exports to non-CITES or CITES signatory countries which have taken reservations on any endangered crocodiles and alligators. Japan and Italy are not CITES members, and France, the leading luxury tanner (importing approximately 600,000 skins per year), has taken reservations on no less than 5 crocodilian species. Just recently, West Germany and Switzerland took out reservation for a single species, C. porosus. Should ESSA's proposal go through, only the UK and Hong Kong will be allowed to import American alligator hides when they again become legally available.

---

[1] The statistics we give today are based on the official CITES 1977 and 1978 annual reports. However, an American tanner has stated to us that while the CITES statistics give 13,000 crocodilian pieces exported from the U.S., he tans for export approximately 12,000 pieces and 5,000 hides per year. There were 23,867 live caimans from Panama which passed through the port of Miami in 1978, while the 1978 CITES report will show 2,278 live caimans imported with 12 shipments of unknown quantities. This discrepancy can also be found between other export - import documents, so we must view the CITES figures as minimal ones.

[2] You may find these measurements confusing, but CITES countries report their import and export figures differently. In order to maintain accuracy, we do not standardize these by converting them to one measurement unit.

The world market for crocodilian products is high, an estimated 2 million crocodile hides were traded in 1976. In comparison, the addition of under 10,000 legal American alligator hides in 1979, according to ESSA's estimate, would hardly affect existing trading patterns. This in itself is worrying. It is too easy to lose track of 10,000 skins on the world market particularly when non-CITES countries are involved. One legal skin can give rise to hundreds of products by reproduction of export permits as we have seen with a single elephant tusk extending itself into hundreds of pounds of ivory products once it reaches Hong Kong.

Since U.S. manufacturers and tanners have enforced the federal regulations regarding the alligator ban since 1973, they should be given special consideration. Perhaps we should envisage keeping a major portion or all alligator skins in the United States for domestic trade, exporting only finished products. However, regardless of where the skins are auctioned and tanned, and of the number of skins involved, we feel that the United States should not directly or indirectly encourage the importation of any Appendix I species. To put pressure on countries which are importing large numbers of endangered crocodilians, the United States, to maintain its firm commitment to wildlife conservation, should export American alligator hides only to CITES signatory countries which have not taken reservations on crocodiles.

The threat of poaching should not be dismissed. The value of crocodilian leather has increased 500% since 1970. The average price of leather was $29.11/kg in 1970, while eight years later, leather imported by Japan was worth $156.06/kg. Similarly, raw skins were sold to Japan in 1970 for $14.22/kg versus $39.31/kg in 1978.[3]

In the United States, farmed American alligator hides sold for an average of $104.71 in 1976 and $62.38 in 1977. The average price of wild American alligator skins at an auction in Louisiana, October 1976, was $116.71 or $16.55 per foot and $89.24/skin or $12.23/foot at an auction in Louisiana, October 1977. In comparison, less desireable Caiman crocodilus skins imported into the U.S. cost two to three dollars per linear foot today.

Finished products are sold at staggering price to the consumer. In Paris, $1000 to $2000 for a Nile crocodile handbag is not uncommon. A pair of American alligator boots run approximately $700 in Texas.

In view of our findings, TRAFFIC (USA) feels that the reopening of the alligator hide trade in the United States would not be detrimental to the species provided the stringent identification and control procedures are enforced from the trapper to the consumer. We would like to commend and strongly support the actions ESSA has taken on this issue. They have carefully examined the facts and are working towards a sound solution to maintain protection for the American alligator following its change in status under CITES. ESSA's policy will reinforce and honor the Convention's intent by allowing export of American alligator hides only to CITES signatory countries which have not taken reservations. Poaching could be averted by the proposed licensing procedures, and identification of American alligator hides made easier if hides are tanned and indelibly marked in the U.S. prior to export. The licensing and marking requirements imposed on foreign buyers, tanners, and manufacturers must insure against fraudulent practices involving counterfeit marks or falsification of documents if the CITES is going to be fully enforced. We sincerely hope so.

---

[3] These prices are indications of market demand. Some endangered crocodilian species are far more valuable than others. Comparatively low prices were paid in the early 70s for desireable species now so endangered they are no longer available, whereas today even less desireable Caiman skins are sold for $40/kg.

REFERENCES:

Burton, J. and T. Inskipp, 1979. Reptiles: towards crocodile farms. Earthscan Press Briefing Document, No. 16.

Busack, Stephen D., 1974. Amphipians and reptiles imported into the United States. Wildlife Leaflet 506, FWS, Dept of Int.

Japan Exports and Imports, compiles by the Ministry of Finance, published by the Japan Tariff Association.

1977 Federal Republic of Germany CITES Annual Report.

1978 Switzerland CITES Annual Report.

1978 United Kingdom CITES Annual Report

1977 U.S. CITES Annual Report, Wildlife Permit Office, FWS, Dept. of Int.

1978 U.S. CITES Annual Report, Wildlife Permit Office, FWS, Dept. of Int. (Unpublished).

TABLE 1

JAPAN IMPORTS OF ALLIGATOR AND CROCODILE LEATHER AND SKINS FROM THE UNITED STATES (KG)

YEAR	SKINS U.S.	TOTAL JAPAN IMP.	LEATHER U.S.	TOTAL JAPAN IMP.
1970	25,345	136,856	16,419	45,033
1971	14,692	112,512	9,556	32,722
1972	17,265	102,057	15,694	39,066
1973	NO FIGURES, AMERICAN ALLIGATOR PLACED ON END. SP. LIST.			
1974	1,259	22,644	659	13,153
1975	2,286	46,167	1,484	18,283
1976	1,589	27,206	58	14,407
1977	0	76,330	0	12,126
1978	0	102,854	0	12,161

Source: Japan Exports and Imports, compiled by the Ministry of Finance, published by the Japan Tariff Association.

TABLE 2

U.S. IMPORTS OF CROCODILIAN PRODUCTS

EXPORTING OR RE-EXPORTING COUNTRY	SPECIES	LIVE	SKINS	HIDES AND PIECES	LEATHER ARTICLES
(1977)					
FRANCE	*C. c. crocodilus*				118
	Croc. novaeguineae		38		
ITALY	*C. c. crocodilus*				350
PANAMA	*C. c. crocodilus*	245+			
PAPUA NEW GUINEA	*Croc. novaeguineae*		304		
	Croc. porosus		204		
SPAIN	*C. c. fuscus*				102
WEST GERMANY	*C. c. fuscus*				22
	Croc. novaeguineae				245
	Croc. porosus				21
TOTALS (1977)		245	546	0	858
(1978)					
COLOMBIA	*C. c.* species				5,250
EL SALVADOR	*C. c.* species	6,700			
FRENCH GUIANA	*C. c.* species		11,590		
ITALY	*C. c.* species				159
PANAMA	*C. c.* species	2,278+			
SPAIN	---				4
WEST GERMANY	---				748
TOTALS (1978)		8,978	11,590	0	6,161

Source: 1977 and 1978 (unpublished) U.S. CITES Annual Report

TABLE 3

U.S. EXPORTS OF CROCODILIAN PRODUCTS

U.S. EXPORTS TO:	SPECIES	COUNTRY OF ORIGIN	1977	1978
SWITZERLAND	*C. c. crocodilus*	Guyana and Suriname	6,643 pieces 47 pounds	
	C. c. species	Guyana and Suriname		7,372 hides
UNITED KINGDOM	*Croc. novaeguineae*	---	6 skins	
WEST GERMANY	*C. c.* species	Guyana and Suriname		947 hides
		Bolivia and Paraguay		686 pieces
HONG KONG	*C. c.* species	Guyana and Suriname		7,004 pieces
		Bolivia and Paraguay		1,269 pieces 42 pounds
FRANCE	*C. c.* species	Guyana and Suriname		385 hides
	A. mississippiensis	U.S.A.		2 hides
ITALY	*C. c.* species	Guyana and Suriname		1,125 hides 3,000 skins
		Bolivia and Paraguay		3,824 pieces 34 pounds
		---		4,579 sq. ft.
JAPAN	*A, mississippiensis*	U.S.A.		323 hides
UNSPECIFIED	*C. c.* species	---		900 skins 9,500 sq. ft.

Source: 1977 and 1978 (unpublished) U.S. CITES Annual Report.

TABLE 4

CROCODILIAN PRODUCTS IMPORTED INTO CITES SIGNATORY COUNTRIES
(Source: CITES Annual Reports)

COUNTRY	SPECIES	SKINS	HIDES	LEATHER PRODUCTS	EXPORTING OR RE-EXPORTING COUNTRY
SWITZERLAND (1978)	*C. c. crocodilus*	1,200	20,626 sides		FRANCE
		226	1,059 "		ITALY
		24	878 "		UK
			1,400 "		USA
	C. c. fuscus	455			WEST GERMANY
		96			ITALY
	C. c. yacare		7,516 "		FRANCE
	C. c. spp.		6 "		FRANCE
		300			USA
	Croc. acutus	250			ITALY
			1,771 "		FRANCE
	Croc. johnsoni	3,770			FRANCE
	Croc. novaeguineae	6,747			FRANCE
	Croc. porosus	2,036			FRANCE
		104			ITALY
UNITED KINGDOM (1978)	*C. c. crocodilus*	5,000 sq.ft.			PARAGUAY
	C. c. spp.	4,000 sq.ft.			PARAGUAY
		5,028			SWITZERLAND
	Croc. novaeguineae	100			USA
	Croc. porosus	63			FRANCE
		50			PAPUA NEW GUINEA
	Caiman s. sclerops	65			GUYANA
WEST GERMANY (1977)	*C. c. crocodilus*		56,974	257	FRANCE
			1,068		NETHERLANDS
			34,740	1,962	ITALY
			2,066		PARAGUAY
			57		SINGAPORE
	C. c. fuscus		133,058		COLOMBIA
			15,489	348	ITALY
	C. c. yacare		9,981	6	FRANCE
	Croc. acutus		351		FRANCE
	Croc. novaeguineae		2,750		FRANCE
	Croc. porosus		3,545	7	FRANCE
			2,605	676	ITALY
			367		SINGAPORE
	Alligatoridae spp.		1,598		BOLIVIA
	Crocodilidae spp.			9	ITALY

APPENDIX I

Excerpt from: The Wildlife Trade, Chapter 15 (pp. 253 - 271) in WILDLIFE IN AMERICA, H. P. Brokaw, editor, 1978.

International trade in crocodilian hides exemplifies many of the problems resulting from wildlife commerce and attempts to regulate it. In the 1950's and early 1960's, 5 to 10 million crocodilian hides were traded internationally each year. The state of Amazonas, Brazil, alone marketed 4.9 million caiman hides in 1950 (Carvalho, 1967). A single New York City area tanner processed more than 750,000 hides a year. Under such intense hunting pressure, crocodilians everywhere became endangered, and one producer country after another enacted protective legislation. In Africa most of this protection came into being between 1964 and 1970 (Cott and Pooley, 1972). The American Alligator was afforded federal protection under the Lacey Act and Endangered Species Conservation Act of 1969.

Because U.S. Government wildlife and customs agents have difficulty in distinguishing among the various species of crocodilian hides, dealers declare their imports to be from nonprotected species. Before the Nile Crocodile (*Crocodylus niloticus*) was placed on the U.S. Endangered Species List, it was the most frequently imported African crocodile hide. After it appeared on the list, most imported African hides were declared to be from another African species, the Slender-snouted Crocodile (*Crocodylus cataphractus*), but in most instances the species had not actually changed. Similarly, Yacare Caiman (*Caiman crocodilus yacare*) hides from Bolivia and Paraguay were declared to be Spectacled Caiman (*Caiman crocodilus crocodilus*), and Morelet's Crocodile (*Crocodylus moreleti*) suddenly became American Crocodile (*Crocodylus acutus*).

But even before the various legislative prohibitions had a chance to take effect, many of the crocodilian hide dealers, tanners, and manufacturers went out of business as hides became increasingly rare. In the 1950's there were over 20 tanners and manufacturers dealing in crocodilian hides in the metropolitan New York City area. By the late 1960's approximately half that number remained.

As the hides became difficult to obtain, the reptile leather industry turned to less desirable species to fill its needs. In South America, the species of first choice were the American (*Crocodylus acutus*) and Orinoco (*C. intermedius*) Crocodiles, which had no bony buttons (osteoderms) in the belly skins. Even as these two species were becoming scarce, the hunters sought out the large and not too bony Black (*Melanosuchus niger*) and Broad-snouted (*Caiman latirostris*) Caimans. When they in turn became scarce, the hunters turned to the smaller, bonier Spectacled (*Caiman crocodilus crocodilus*) and Yacare (*C.c. yacare*) Caimans. These less desirable species permitted hunters (and international consumers) to continue operations when the preferred species were too scarce to support an industry. The secondary species also subsidized continued hunting of the preferred species, for any hunter making a living from Spectacled Caiman kills every Black Caiman or crocodile he stumbles across. With international prices of $50 to $75 for a 6-foot American Crocodile hide, hunters are not likely to pass up this source of income. This use of less desirable alternate species to subsidize a declining industry is seen in other wildlife species traded internationally; whales and the whaling industry are prime examples.

The decline in New York metropolitan reptile hide tanners cannot be attributed to the protective legislation, CITES, the U.S. Endangered Species Acts, and the various state laws despite industry claims to the contrary. The same decline is occurring in Europe and is the result of simple economics. Fancy reptile leather products cannot be manufactured by machine. They require a great deal of handwork by individual craftsmen, and wages are so high that the resulting products are too expensive for the market. How many high quality saltwater crocodile purses can an industry sell at $400 apiece? Many reptile leather products are now made in places where inexpensive labor is available (Hong Kong, for instance), while the skilled craftsmen of Europe and North America are turning to other jobs.

Today an estimated 2 million crocodilian hides are traded annually in international commerce, compared with the 5 to 10 million of earlier years. Because of improper preservation in the field, which results in rot and severe scale slip, 50 percent of these hides are unusable and are lost. French tanners consume approximately 500,000 a year; Italians, 400,000; and West Germans, 350,000 (250,000 hides and 100,000 in the form of products). The remainder are consumed in the United States, Japan, England, and Singapore.

F. Wayne King, Ph.D.
pp. 261,262.

R 9200-1.3

TRAFFIC(U.S.A.)

1601 Connecticut Avenue N.W., Washington, D.C. 20009 Telephone: (202) 797-7901 Cable: PANDAFUND Telex: 64505

TRAFFIC (USA) REPORT ON THE IVORY TRADE

in response to the

PROPOSED ELEPHANT PROTECTION ACT OF 1979, HR 4685

before the

MERCHANT MARINE AND FISHERIES COMMITTEE

July 25-26, 1979

presented by

Nicole Duplaix
Director of TRAFFIC(USA)

Testimony No. 3

WORLD WILDLIFE FUND-U.S.

TRAFFIC (U.S.A.)—Trade Records Analysis of Flora and Fauna in Commerce—is a scientific information-gathering program monitoring trade in wildlife, plants, and their products. It is funded by World Wildlife Fund-U.S.

TRAFFIC (USA) is a scientific, information gathering organization funded entirely by the World Wildlife Fund - US. We monitor trade in endangered and commercially exploited species of fauna and flora. World Wildlife Fund - US is an independent conservation organization, organized in the United States and headquartered at 1601 Connecticut Avenue, Washington, D.C. Today, we will provide quantitative data on the worldwide trade in elephant ivory based on official trade statistics and CITES reports. The discrepancies between these figures will be revealed and discussed and an evaluation made of the present record keeping system in the United States.

First, we would like to put the ivory trade and its related problems into the proper perspective. We are not only discussing an elephant derivative, but a rare commodity, the bullion of wildlife products. There is a striking similarity between gold and ivory and the sharp increase in value they have both experienced as a result of worldwide recession. Both ivory workers and goldsmiths are being forced out of business because they can no longer afford to buy such a speculative commodity.

We strongly support the findings and conclusions of Dr. Iain Douglas-Hamilton and Mr. Ian Parker.[1] We agree that while severely threatened outside national parks and sometimes too crowded within them, elephants are not an endangered species. The joint effects of poaching and culling are certainly reflected in the export figures of many African nations although it is often difficult to determine which of the two is greater. One thing is fairly obvious - African nations will continue to export ivory as long as there are consumers ... and elephants.

---

[1] The World Wildlife Fund - US has contributed $50,000 to Dr. Douglas-Hamilton's research on elephants.

In 1976, 1,255,919 kg of raw ivory (unworked) was imported by consumer countries and 976,859 kg in 1977 (Table 1). Ian Parker estimates that the ivory yield per elephant is 17.37 kg (avg. tusk weight - 9.65 kg X 1.8 tusks per elephant), an average representing tusk weights from elephant populations all over Africa. If we convert kilograms of raw ivory into number of elephants: an estimated 72,304 elephants were killed for their ivory in 1976 and 56,238 elephants in 1977.[2]

Most African countries with endemic elephant populations do not provide official ivory export figures, but by adding raw ivory totals from importing countries, a fairly good estimate can be reached. African nations exported 1,006,987 kg (approximately 57,968 elephants) of raw ivory in 1976, and 710,703 kg (approximately 40,916 elephants) in 1977. For instance, Kenya Uganda and Tanzania listed exports for 1976. However, the discrepancy between their export figures and the sum total of ivory imported by other countries is a staggering 460,709 kg (estimated 26,523 elephants). Why such a wide margin of error? Improper labelling? Laundering of documents? Poaching? Who is to say for sure.

The United States is a consumer country. It imported 35,108 kg, 2.8 per cent of the world trade in raw ivory in 1976, and

---

[2] These figures may be overestimated since some of this ivory is certainly re-exported within the same year to another country listing it.

15,375 kg, 1.6 per cent of all raw ivory traded, in 1977. The amount of raw ivory imported into the United States has decreased since 1977, while the price has more than doubled over the last year (Table 2). It should be pointed out, however, that the United States is largely an importer of worked ivory rather than raw ivory (Table 3).[3] The estimated number of elephants required for worked ivory products imported into the U.S. in 1977 was between 2,258 and 3,090 and between 1,935 and 4,819 elephants in 1978 (total weight imported/17.37 kg of ivory per elephant). For the first five months of 1979, the United States imported over two million dollars worth of worked ivory pieces (estimated 546 to 658 elephants). In total the U.S. was responsible for importing an estimated 42,646 to 92,734 kg of raw and worked ivory in 1978 which represents between 2,455 and 5,339 elephants.

Attached to this report are 3 tables summarizing the world trade in ivory in 1976 and 1977, and the U.S. import figures on raw and worked ivory. From these data we can state that the major exporters of raw ivory are the Sudan, South Africa, Kenya, Tanzania, Central African Empire, Zambia, Congo, Uganda and Burundi. Raw ivory is then re-exported mainly from Hong Kong, West and East Germany, France, Korea, and Belgium and imported by Japan, Hong Kong, West Germany, Spain, France and to a lesser extent the UK, U.S., Taiwan and Singapore. Raw ivory is worked in West Germany, the United States, Hong Kong, China, Japan and Singapore.

---

[3] The U.S. imports of worked ivory products from official statistics are reported in dollars. To convert to kilograms, the total value is divided by 3 which is the average markup of a finished product, and then divided by the cost/kg of raw ivory (Hallagan, pers. comm.). From 1977 - 1979, the cost of ivory in the U.S. was $28.62, $28.38, and $58.62, respectively, and in Japan, $39.17, $70.67, $70.67 (1978 cost/kg used for 1979).

The Bill presently being discussed on elephant ivory imports (HR 4685) is a bill strongly favoring elephant conservation and should be commended. If passed, this bill, if it is to be effective, will rely mainly on U.S. record keeping systems and other foreign countries. Instead of giving the decision making power to the Department of Interior of what countries can and cannot export ivory to the United States, following the proposed six month ban of all ivory, we suggest only countries party to CITES be allowed to export ivory products to the U.S. This is similar to current law which was passed in June 1978. To further insure that elephants are not being poached or mis-managed in CITES signatory countries, the United States should require yearly CITES reports from all these countries and also re-exporting countries, and that the exports of ivory be in balance with importing figures from other countries. Thus , Hong Kong would have to supply a report ot the Secretariat of CITES, which they have yet to do, before they could re-export ivory to the U.S., and Kenya would have to keep a tighter control of its export figures so that the amount of ivory exported correlated more closely with the amount imported by other countries.

Non-CITES countries may oppose this proposal, but we feel that any country which has a strong conservation program in effect would wish to be party to the Convention. The CITES agreement allows the U.S. to place pressure on foreign countries that are exploiting wildlife and not maintaining adequate conservation efforts. By not importing fauna or flora from non-CITES countries, the United States effectively puts pressure on them.

One of the best features of CITES is the submission of annual reports by each party listing all their imports and exports of Appendix I and II species and their parts and/or products. Since most countries in their official statistics including the U.S. tend to lump imports and exports of many wildlife products in one general category (eg. - Alligator and crocodile skins placed in the category reptile skins), CITES reports monitor the trade of all endangered and threatened species. If one CITES country were to underestimate the number of exports, this will show up in the reports by other CITES importing countries. Discrepancy problems and outright negligence of the Convention are reviewed by the CITES Secretariat.

At present while many of the large and conservation conscious countries have already published their 1978 CITES reports, the United States' report will not be available until October 1979. The U.S. Permit Office handling all CITES permit requests and record keeping for Appendix I and II species is understaffed. As a result, it sometimes takes up to three months before an import or export permit request is granted or denied. In most cases, foreign companies are unwilling to wait so long to market their products and choose other outlets. At the alligator hearings of ESSA on July 10, 1979, one tanner told TRAFFIC (USA) the reason foreign countries did not want American alligator hides was because the length of time it took to obtain the export permit. A state of affairs hardly conducive to an improved balance of payment!

There is at present another problem with the record keeping system of wildlife products imported into the United States. The 3-177 Declaration of Import forms are currently stored at the ports of entry and a separate CITES permit for Appendix I and II imports sent to the U.S. Permit Office in Arlington, Virginia. In many cases the CITES permit will state the item imported and exporting country, but not have country of origin, quantity or value of the item. To take one specific case in 1978 regarding Appendix II crocodile imports, the 3-177 forms held in Miami reported 23,867 live caimans from Panama passing through this port while the U.S. CITES permits showed 2,278 live caimans and 12 shipments of unknown quantity.

It has been rumored that all 3-177 forms and attached documents (CITES permit) will be sent directly to the USDI Law Enforcement office in Washington, D.C., and then stored at the Permit Office. This would be more expedient and it would make it easier to pick up violations of wildlife importations. Two problems have come to our attention: 1) imports of ivory from non-CITES countries, and 2) lack of data about the country of origin - both in clear contradiction of existing U.S. regulations. The TRAFFIC (USA) office has volunteered to help analyze the data on the CITES or 3-177 permits to alleviate existing problems.

In conclusion, we need a CITES Convention but we do not yet have the Convention we need. The rate of growth of world trade in endangered or threatened species and their products at the moment far outweighs the enforcement techniques set up to monitor and enforce the Convention it purports to implement. Without adequate funding for additional law enforcement personnel and until the necessary paperwork is carried out properly, the Convention is a hortatory agreement of convenience.

African nations as the producers of ivory need to monitor exports more carefully - Zaire and Kenya have gone so far as to ban exports of ivory. Elephant herds in the 90-odd national parks should be protected more assiduously and culled only when necessary to prevent the irreversible destruction of the habitat. Perhaps federal AID funds could be allocated to implement better elephant conservation policies in African nations if they are prepared to accept outside advice on such a valuable resource.

Meanwhile, in the United States, we should as a member of CITES, encourage a better enforcement of the CITES regulations on a national and international scale. Thank you.

TABLE 1

RAW IVORY IMPORTS AND EXPORTS (KG)

COUNTRY	IMPORT (1976)	EXPORT (1976)	IMPORT (1977)	EXPORT (1977)
HONG KONG	719,128	227,343	476,202	130,480
JAPAN	310,216	3,027	269,192	3,921
SINGAPORE	10,969	7,847	10,359	6,526
TAIWAN	6,254		9,710	69
UNITED KINGDOM	27,426	31,167	18,827	
WEST GERMANY	70,900	13,900	69,300	13,462
SPAIN	34,000	109	34,000	160
SWITZERLAND	973	7	750	98
FRANCE	17,000	7,000	38,000	10,000
USA	35,035	(1,114)	15,996	(50)
KOREA	(26)		8	49
KENYA		68,738 (415,234)		12,386 (252,208)
SUDAN		(23,717)		(33,177)
S. AFRICA	3,300	(27,134)		(9,205)
TANZANIA		37,020 (62,613)		(37,243)
C. AFR. EMPIRE		(27,951)		(52,717)
ZAIRE		(288,223)		(151,309)
ZAMBIA		(47,468)		(24,583)
BOTSWANA		(4,146)		(2,397)
CONGO		(15,733)		(14,253)

(The figures in parenthesis are the totals derived by analyzing data from other countries when existing data is absent or conflicting with countries' official import/export figures.)

TABLE I (CONT.)

RAW IVORY IMPORTS AND EXPORTS (KG)

COUNTRY	IMPORT (1976)	EXPORT (1976)	IMPORT (1977)	EXPORT (1977)
UGANDA		5,693 (94,313)		(108,998)
CAMEROUN				(7,624)
BURUNDI				(16,989)
NIGERIA		(135)		
IVORY COAST		(230)		
UNITED ARAB EM.		(4,126)		
YEMEN		(2,229)		
INDIA	7,375		(6,964)	
THAILAND	2,495			
INDONESIA	(293)			
ITALY	3,500	100		
NETHERLANDS	(1,985)	(3,725)	(2,321)	(2,430)
BELGIUM	100	100	(6,862)	
AUSTRALIA	(18)			(9,136)
PERU				(1,440)
EAST GERMANY				(21,200)
OTHER COUNTRIES	(4,926)	(50,357)	(18,368)	(44,245)
TOTAL	1,255,919 kg	898,339 kg to 1,359,048 kg	976,859 kg	714,147 kg to 953,969 kg

Source: IUCN/TRAFFIC (unpublished data from official statistics)

TABLE 2

U.S. IMPORTS OF IVORY TUSKS (KG)

COUNTRY	1976	1977	1978	(Jan - May) 1979
KENYA	19,497	1,612	2,149	
TANZANIA	2,420			
REP. S. AFRICA		3,879	3,223	
ZAMBIA			1,665	35
BOTSWANA	2,964		1,442	948
CEN. AFR. EMPIRE			186	
ZAIRE				176
HONG KONG		3,767	53	
INDIA			182	
CHINA			132	
UK				11
CANADA				14
OTHER COUNTRIES	10,227	6,117		
TOTAL (KG)	35,108	15,375	9,032	1,184
TOTAL VALUE ($)	853,000	440,000	256,316	69,413
VALUE/KG (AVG.)	$ 24.30	$ 28.62	$ 28.38	$ 58.62

Source: U.S. *Imports*, Bureau of Census, U.S. Dept. of Commerce.

TABLE 3

U.S. IMPORTS OF IVORY BEADS AND UNSPECIFIED IVORY PRODUCTS
Value in Dollars (Estimated Weight - KG)

COUNTRY	1977	1978	(Jan - May) 1979
HONG KONG	$ 3,952,000	$ 5,844,605	$ 1,955,000
JAPAN	304,000	638,887	
CHINA	114,000	177,828	2,514
TAIWAN		30,858	8,689
KOREA		106,587	
INDIA		174,766	25,684
UK		45,528	9,792
FRANCE		1,679	
WEST GERMANY		2,059	2,952
SPAIN		400	
ITALY		2,585	
NETHERLANDS		2,986	
BELGIUM		1,544	
GREECE		334	
CANADA		388	
HAITI		10,062	
ARGENTINA		950	
REP. S. AFRICA		24,090	2,101
ZAIRE		5,570	1,566
TANZANIA		5,343	
SUDAN		2,203	
IVORY COAST		1,512	
BOTSWANA		994	2,236
KENYA		44,550	
OTHER COUNTRIES	239,000		
TOTAL VALUE	$ 4,609,000	$ 7,126,308	$ 2,010,534
EST. WEIGHT	(39,222 - 53,680 kg)	(33,613 - 83,701 kg)	(9,483 - 11,432 kg)

Source: U.S. Imports, Bureau of Census, U.S. Dept. of Commerce.

R9200-1.3

TRAFFIC(U.S.A.)

1601 Connecticut Avenue N.W., Washington, D.C. 20009 Telephone: (202) 797-7901 Cable: PANDAFUND Telex: 64505

BOBCAT EXPORT
AND
INTERNATIONAL TRADE

prepared by

TRAFFIC (USA)

for

THE BOBCAT RESEARCH CONFERENCE

October 16 - 18, 1979
in Front Royal, Virginia

WORLD WILDLIFE FUND-U.S.

TRAFFIC (U.S.A.)—Trade Records Analysis of Flora and Fauna in Commerce—is a scientific information-gathering program monitoring trade in wildlife, plants, and their products. It is funded by World Wildlife Fund-U.S.

A total of 39 states and the Navajo nation are involved in the harvest and export of bobcat pelts and garments in the United States. Fourteen states exported more than 1,000 skins each in Fiscal Year (FY) 1979, and 22 states and the Navajo nation more than doubled the number of pelts exported from FY 1978 to FY 1979 (Table 1). The number of bobcat hides exported by the United States rose from 22,275 pelts exported in FY 1978 to 41,588 pelts in FY 1979, a jump of over 85% in one year (Table 1). Comparing Calendar Years (CY), bobcat skin exports increased 119% from 11,121 pelts in CY 1977 to 24,389 in CY 1978 (Table 2). In addition, 411 bobcat garments were exported in CY 1978, representing an estimated 3,288 skins (an average of 8 skins is used to produce 1 garment).

West Germany, Canada, Switzerland, Denmark, France, and Italy are the major importers of U.S. bobcat pelts and garments (Table 2). West Germany imported over 50% of both pelts and garments in 1977 and 1978.

Canada is the only other nation which supplies export statistics on bobcat (Table 3). It exported 5,749 pelts (+1,337 kg) in 1977 and 6,341 (+1,943 kg) in 1978. An additional 522 garments, i.e. 4,176 skins, were exported in 1977 and 1,575 garments, i.e. 12,600 skins, in 1978. None of the pelts or garments were listed as re-exports in the Canadian CITES Report; thus, Canada harvested at least 10,000 bobcat in 1977 and 19,000 in 1978 to supply export demands.

The major importers of Canadian bobcat are West Germany the United States, Switzerland, France, and Italy (Table 3). As with the United States, West Germany imports most of the skins and garments exported by Canada.

The bobcat pelts, once over in the European Common Market, are re-exported to other countries (Table 4). West Germany re-exported bobcat skins to Belgium, Italy, and Switzerland in 1977 and 1978. Switzerland re-exported hides to Greece, Hong Kong, Italy, the United Kingdom, and West Germany, and Italy shipped many pelts to Switzerland.

The bobcat also occurs in Mexico and is certainly harvested and exported. No details are available as Mexico is not a member of CITES.

TABLE 1

U.S. BOBCAT (FELIS RUFUS) EXPORT BY STATE

(Fiscal Year, Oct. - Sept., Calendar Year, Jan. - Dec.)
Compiled by the Wildlife Permit Office. FWS, USDI.

STATE	FY 1978		FY 1979 (as of 8 Aug 79)	CY 1978
ALABAMA	773		527	773
ALASKA	-		11	0
ARIZONA	2,056	(23)	1,516	2.107
ARKANSAS	108		2,058	108
CALIFORNIA	1,808		4,365	1,891
COLORADO	679		1,076	707
CONNECTICUT	-		-	0
DELAWARE	-		-	0
FLORIDA	240		417	240
GEORGIA	2,245		2,819	2,300
IDAHO	285		429	318
INDIANA	-		1	0
KANSAS	-		222	0
LOUISIANA	3,423		3,816	3,434
MAINE	8	(2)	29	10
MARYLAND	-		-	0
MASSACHUSETTS	0		161	0
MICHIGAN	20		195	21
MINNESOTA	34		46	36
MISSISSIPPI	503		2,325	503
MISSOURI	-		50	0
MONTANA	397	(1)	1,526	427
NEBRASKA	6		29	8
NEVADA	586	(16)	1,773	634
NEW HAMPSHIRE	-		-	0
NEW MEXICO	2,373	(5)	2,439	2,525
NEW YORK	5		34	5
NORTH CAROLINA	397		891	397
NORTH DAKOTA	3		39	20
OHIO	4		4	4
OKLAHOMA	0		1,948	0
OREGON	974	(4)	1,828	1.022
RHODE ISLAND	-		-	0
SOUTH CAROLINA	-		223	0
SOUTH DAKOTA	22		123	25
TENNESSEE	238		405	238
TEXAS	400	(477)	5.105	877
UTAH	4		15	10
VERMONT	0		2	0
VIRGINIA	72		99	72
WASHINGTON	744	(5)	1,071	894
WEST VIRGINIA	110		393	110
WISCONSIN	6		50	8
WYOMING	772	(2)	865	791
NAVAJO NATION	1		17	1
* UNKNOWN ORIGIN	2,979	(2,218)	2,646	3,873
TOTAL	22,275		41,588	24,389

() - The number in parenthesis are additional CPA inventory approved exports during FY 1978 and FY 1979.

* - Some reports of fur exports were logged as garments with no listing of tag numbers or of number of pelts used or of states of origin. In FY 1978 and FY 1979, an additional 236 bobcat garments were exported with unk. origi

TABLE 2

U.S. EXPORT OF BOBCAT (FELIS RUFUS) SKINS AND GARMENTS

	1977		1978	
COUNTRY	SKIN	GARMENT	SKIN	GARMENT
AUSTRIA	114	2		5
BELGIUM	99		83	
* CANADA	452		7,264	1
* DENMARK	2,950		997	
EL SALVADOR				1
* FINLAND	15			
* FRANCE	555		423	15
ITALY			514	4
JAPAN			103	4
MEXICO				2
SCOTLAND				1
* SWITZERLAND	34 (267)	14 (58)	723 (117)	101 (64)
* UNITED KINGDOM	180		32	7
* WEST GERMANY	6,021 (4,078)	19	11,925	270
UNSPECIFIED	701	3	2,325	
TOTAL	11,121	38	24,389	411

Source: 1977/1978 U.S. CITES Reports. The number in parenthesis is the import figure listed in the importing countries' CITES Report.

* CITES Signatory Countries.

TABLE 3

CANADA EXPORT OF BOBCAT (*FELIS RUFUS*) SKINS AND GARMENTS

COUNTRY	1977 SKIN	1977 GARMENT	1978 SKIN	1978 GARMENT
AUSTRIA		2	10	5
BELGIUM		11	110	74
* DENMARK			61	
* FRANCE		2	497	61
GREECE			432 KG	
HONG KONG				4
IRELAND				5
ITALY	149	36	380	144
JAPAN		11	2	58
LIECHTENSTEIN	23			
LUXEMBOURG				6
MEXICO			1	
* MOROCCO		1		1
NETHERLANDS				8
SAUDI ARABIA		3		
* SOUTH AFRICA			10	11
SPAIN	39	2	54	3

TABLE 3

CANADA EXPORT OF BOBCAT (FELIS RUFUS)
SKINS AND GARMENTS
(Cont.)

COUNTRY	SKIN	GARMENT	SKIN	GARMENT
* SWEDEN		20		4
* SWITZERLAND	352	205 (171)	609 (322)	393 (369)
* UNITED KINGDOM	3	75		129
* UNITED STATES	3,368 (595) 1,337 KG	74 (32)	1,240 (3,930) 1,511 KG	245 (82)
* WEST GERMANY	1,815 (930)	80	3,367	424
TOTAL	5,749 + 1,337 KG	522	6,341 + 1,943 KG	1,575

* CITES Signatory Countries.

Source: 1977/1978 Canada CITES Report. The number in parenthesis is the import figure listed in the importing countries' CITES Report.

TABLE 4

IMPORT OF BOBCAT (FELIS RUFUS)
SKINS AND GARMENTS
(cont.)

	1977		1978		EXPORTING COUNTRY	COUNTRY OF ORIGIN
COUNTRY	SKIN	GARMENT	SKIN	GARMENT		
* UNITED KINGDOM	180		32	7	USA	USA
	3	75		129	CANADA	CANADA
			22		SWITZERLAND	--
* UNITED STATES	595 (3,368 1,337 KG)	32 (74)	3,930 (1,240 1,511 KG)	82 (245)	CANADA	CANADA
	0 (20)				FRG	SWITZERLAND
		1			FRG	CANADA
	78 (78)		0 (101)	0 (1)	FRANCE	CANADA
		6			FINLAND	--
* WEST GERMANY	4,078 (6,021)	0 (19)	? (12,053)	? (106)	USA	--
	930 (1,815)	0 (80)	? (3,367)	? (424)	CANADA	--
	1,497 (2,212)	0 (47)	? (2,441)	? (122)	SWITZERLAND	--
	43				DENMARK	--
		0 (1)			FRANCE	USA
TOTAL	18,962 to 25,397 + 1,337 KG	460 to 639	31,592 + 432 KG to 33,288 + 432 KG	1,879 to 2,106		

* CITES Signatory Countries.

() The number in parenthesis is the export figure listed in the exporting countries' CITES Report.

Source: 1977/1978 U.S. CITES Reports, 1977/1978 Canada CITES Reports, 1977/1978 Switzerland CITES Reports, 1977/1978 France CITES Reports, and the 1977 West Germany CITES Report. The 1977/1978 U.K. CITES Reports do not list imports/exports of bobcat skins, and the France CITES Reports do not list imports of any wildlife products, only exports and re-exports.

TABLE 4

IMPORT OF BOBCAT (FELIS RUFUS) SKINS AND GARMENTS

COUNTRY	1977		1978		EXPORTING COUNTRY	COUNTRY OF ORIGIN
	SKIN	GARMENT	SKIN	GARMENT		
AUSTRIA	114	2		5	USA	USA
		2	10	5	CANADA	CANADA
			19		SWITZERLAND	--
	3				FRG	CANADA
BELGIUM	99		83		USA	USA
		11	110	74	CANADA	CANADA
	1,824				FRG	USA
	425				FRG	CANADA
* CANADA	452		7,134		USA	USA
* DENMARK	2,950		997		USA	USA
			61		CANADA	CANADA
EL SALVADOR				1	USA	USA
* FINLAND	15				USA	USA
* FRANCE	555		426	15	USA	USA
		2	497	61	CANADA	CANADA
		2		4	SWITZERLAND	--
GREECE			432 KG		CANADA	CANADA
	701				SWITZERLAND	--
HONG KONG				4	CANADA	CANADA
			119		SWITZERLAND	--
ITALY			514	4	USA	USA
	149	36	380	144	CANADA	CANADA
			68		SWITZERLAND	--
	167				FRG	USA
IRELAND				5	CANADA	CANADA

TABLE 4

IMPORT OF BOBCAT (*FELIS RUFUS*)
SKINS AND GARMENTS
(cont.)

	1977		1978			
COUNTRY	SKIN	GARMENT	SKIN	GARMENT	EXPORTING COUNTRY	COUNTRY OF ORIGIN
JAPAN			103	4	USA	USA
		11	2	58	CANADA	CANADA
LIECHTENSTEIN	23				CANADA	CANADA
LUXEMBOURG				6	CANADA	CANADA
MEXICO				2	USA	USA
			1		CANADA	CANADA
* MOROCCO		1		1	CANADA	CANADA
NETHERLANDS				8	CANADA	CANADA
			1		SWITZERLAND	--
SAUDI ARABIA		3			CANADA	CANADA
SCOTLAND				1	USA	USA
* SOUTH AFRICA			10	11	CANADA	CANADA
SPAIN	39	2	54	3	CANADA	CANADA
* SWEDEN		20		4	CANADA	CANADA
			8		SWITZERLAND	--
* SWITZERLAND	267 (34)	58 (14)	117 (723)	64 (101)	USA	--
	0 (352)	171 (205)	322 (609)	369 (393)	CANADA	--
	24 (4)	17	100	65	FRG	--
	3,751		257		ITALY	--
		8	36	91	GREECE	--
			14		AUSTRIA	--
		0 (1)		0 (1)	FRANCE	USA
				0 (1)	FRANCE	CANADA

TRAFFIC(U.S.A.)

1601 Connecticut Avenue N.W., Washington, D.C. 20009 Telephone: (202) 797-7901 Cable: PANDAFUND Telex: 64505

IS THE INTERNATIONAL TRADE CONVENTION FOR OR AGAINST WILDLIFE ?

by

Nicole Duplaix
Director
TRAFFIC (USA)

Laura Grady
Research Assistant
TRAFFIC (USA)

presented at the

WORLD CONFERENCE III
ON BREEDING ENDANGERED SPECIES IN CAPTIVITY

November 12-15, 1979

San Diego, California

IS THE INTERNATIONAL TRADE CONVENTION FOR OR AGAINST WILDLIFE ?

Nicole Duplaix and Laura Grady

CITES- the Convention on International Trade in Endangered Species of Wild Fauna and Flora- was signed in Washington, D.C., on 2 March 1973 and came into force on 1 July 1975 when ten nations had ratified it. Today, 53 nations are party to this international agreement and two more, the People's Republic of China and Italy, will become members before the end of the year.

CITES prohibits the international commercial trade in the rarest 600 odd species of animals and plants listed on its Appendix I and requires licenses from the exporting country for another 200 species listed on Appendix II.

The questions we must address are complex, contradictory, and disillusioning. Is the objective of CITES eventually to eradicate international trade in wildlife and its products? Or will its role be to effectively regulate it so that even the rarest species can still be removed from the wild? Are all the party nations aware of every intricate regulation of the Convention they ratified and can they even begin to enforce it? How does this global Convention affect zoos- will it put an end to the purchase of rare animals and, more importantly, could it curtail the growing and vital exchange of captive-bred animals between zoos? One thing is certain- CITES not only multiplies the red tape and paperwork, which could discourage many zoos from attempting to overcome this challenge, but also it will, and must affect the whole concept of breeding endangered species- the whys, the hows, and the what nows.

Our once fairly optimistic outlook suffered a considerable setback after studying the background data for this paper. To start with, we listed all the mammals, birds, and reptiles that had bred in captivity over the last three years, dividing them into CITES Appendices and non-CITES categories; long, impressive and misleading tables resulted. If one zoo breeds a solitary tinamou (listed on Appendix I) and its chick does not survive, you achieve an absolute 100% mortality of the offspring during the first year, if it does, this becomes a 100% survival rate. The data were just too few and each species required an explanation. Furthermore, it would seem wiser to be more concerned about existing trends in zoo breeding rather than absolute numbers. After that abortive effort, we carefully reread the proceedings of the Jersey Conference where we really spent a great deal of time patting each other on the back and became quite ruffled when John Perry and Moira Warland dared to challenge and question our firm convictions that we were doing a splendid job. But they made us think, and zoos have been doing a great deal of thinking and research since then, which, in many cases, have proved their worries to be well founded. In London, Janet Kear set the tone of the second conference by stating: "Why should we assume that captive breeding provides protection and from what does it protect?" Today we are aware of the planning required for captive long-term propagation and the necessity for careful monitoring of the individual animal's behavior, genetic history, husbandry, and pathology. Records, once haphazard and seldom shared, are pooled and open to scrutiny by computers and studbook keepers. Yes, we have come a long way since Jersey, only seven years ago, but have the changes in our thinking come too late?

A most discouraging fact is that wildlife is traded as a product far more than it is traded alive- furs, leather, ivory, tortoiseshell constitute the bulk of the market, a luxury, non-essential market at that. In 1978 the United States imported $23 million worth of reptile hides and skins, $69 million of feathers and down, $140 million of furskins, nearly $8 million in ivory. These Customs import values are based on the importers declared buying price, i.e. a fraction of the ultimate retail price. For example, 15,620 lynx furskins valued at $4.5 million were imported in 1978 at an average $290 per skin. It takes ten furs to make a lynx coat which retails for $10,000. The value of all wildlife and its products imported into the United States in 1978 and for the first eight months of 1979 was $300 million and $230 million respectively. That represents 200,000 documented shipments in 1978 of which at least 10,000 contained endangered or threatened wildlife (Appendix I or II species). Official Department of Commerce figures show the U.S. importing 3 million live mammals and reptiles and 600,000 live birds in 1978. The exact number of zoo and aquarium specimens is not available, but, based on a total value of under $400,000, zoo involvement is negligible (1.2%) compared to the $29 million worth of live mammals, reptiles, birds, tropical fish and shellfish destined for the pet trade and research institutions.

Can the Convention curb these imports? Will placing one exploited species on an Appendix merely turn the trade's attention to a non-endangered species until, it too is placed on an Appendix? The bobcat and lynx were immediate targets when the spotted cats were protected. The monitor and tegu lizards suffered the brunt of crocodilian protection. We can also well ask- is the Convention enforced properly or is it circumvented? For most countries with only a year or two into CITES, it is probably too early to know whether CITES is or can ever be effective, paricularly where the larger Third World source nations are involved. There exists a widespread and growing concern in developing nations..to control the exploitation of wildlife and to promote wise and rational programs for the use of their living resources, at least on paper, in practice...

This concern was eloquently addressed at the second CITES meeting in Costa Rica. The delegate from Brazil claimed that her country was unable to effectively monitor its vast borders and control exports: not enough funds or personnel were available. She requested assistance from other nations, particularly developed, consumer nations, by prohibiting the import of Brazilian specimens of wildlife that are being taken and exported illegally. These remarks are valid when you consider the staggering amounts of wildlife being imported by one consumer nation, the United States- and these animals are on a one-way trip.

Any wildlife law is only as good as its enforcement and is enforcement the biggest stumbling block the Convention has to overcome? No, the biggest problem of CITES is that only 53 nations have ratified it, less than half the world's nations. Third World countries lack the resources and expertise to draft and implement the necessary legislation and many of these countries', like Thailand, Tanzania, and Colombia, are known for their intensive wildlife trade. In other consumer nations, strong lobbying groups oppose wildlife controls. Japan, the largest consumer of ivory, tortoiseshell, crocodilian leather, and whale products, is the most obvious example. Detailed analysis of international trade routes based on CITES annual reports and national trade statistics all point an accusing finger at Japan's insatiable appetite for wildlife and wildlife products.

If CITES is effective, will smuggling increase? A writer from the National Geographic Society doing an aricle on wildlife trade told me recently that as a result of CITES much wildlife trade has been driven underground. Shipments of animals are being rerouted via non-CITES nations to avoid controls. For instance, in August 1978, a shipment of three tapirs, three clouded leopards, 38 gibbons and 50 stumptail macaques were shipped from Laos via Thailand to Belgium- all non-members of CITES. The animals probably originated in Thailand and were smuggled into neighboring Laos since Thailand protects tapirs and gibbons.

Smuggling is not only reserved for the pet trade. Zoos have also been involved in a form of smuggling which is even more highly selective, highly sophisticated, but with a serious drawback. The coveted rarity aquired with so much cunning, money, and deceit usually stands out like a sore thumb in the Zoo Yearbook census and is open to the curiosity and criticisms of visiting zoo colleagues. An animal acquired in this manner is excluded from breeding for fear of detection. This type of smuggling will be reserved for our most naive or our most ruthless collectors rather than the professional zoo,and the number of species affected will be small. Unfortunately, you cannot make a house or CITES burglar proof against this sort of attack.

A problem encountered by all who try to enforce the CITES regulations is not being able to obtain information on current wildlife legislation from other countries. Such documents are vital for the effective implementation of CITES and even other international legislation, such as the Lacey Act of the U.S., currently being revised and strengthened. A compounding factor is that officials in foreign embassies usually cannot identify wildlife seized in a shipment nor provide interpretation, nor even lists of current foreign wildlife laws. Serious consideration should be given to establishing a network of qualified persons who could serve as accessible sources of accurate information on trade in wildlife and the laws pertaining to that trade and other utilization. Perhaps this would come within the scope of the IUCN Survival Service Commission's TRAFFIC group. TRAFFIC (Trade Records Analysis of Fauna and Flora in Commerce) was established in 1972 to gather data and monitor the international trade in wild animals and plants. Currently there are two offices based in London and Washington. We need many more if we are to assist zoos and the CITES countries adequately and provide background information. The enthusiasm is there now, all we need is the money.

We have expressed concern for CITES growing pains but we should conclude this section by underlining that the Convention, our only international, multi-national piece of wildlife legislation, can and will control wildlife trade. Live wildlife trade, so much more conspicuous and difficult to smuggle than products, will be affected first until smuggling is controlled to an acceptable level and can be regarded as a regrettable overhead, a minor concern. We must do something to reduce the luxury markets for products in consumer nations- that wastage along with the demands of the pet trade has and will continue to affect zoos indirectly until CITES is as effective as it promises to be.

Certain aspects of CITES- basically a trade agreement about tradeable species- worry us when put in a zoo context. For instance, ISIS data analysis has shown that of the 108 reporting zoos, mostly in North America, the composition of the collection was heavily biased towards certain mammalian orders. Primates, carnivores, and artiodactyls account for 80% of all specimens exhibited, 85.5% of the births and 79.5% of the deaths. If we dig a bit deeper, the Felidae represent 48% of all carnivores exhibited. Now that is interesting because commercial trade is also heavy in primates and cats. There are

36 species of wild cats of which half have been exploited by the fur trade and the IZY lists 28 species as breeding in zoos in 1977. Most of the big cats and a number of the smaller ones are listed on Appendix I and the remainder on Appendix II. Among the Appendix I species are the cheetah, the clouded leopard, the snow leopard and the tigers. There are 183 mammals on Appendix I of which about 85 can be seen in zoos; there are 66 on Appendix II of which 35 are represented in collections. Breeding is another matter. We have charted the progress of certain species. to try and find out where we stand now. This was done by updating the "Threatened Mammal Species Breeding Results 1964-1976" compiled by the National Zoo in Washington. In view of our recent concern with inbreeding coefficients We wondered how many of the eight species, listed as self-sustaining by Perry et al. in 1972 were in fact- safe; they were the Siberian tiger and seven ungulates.

1. The Siberian Tiger (Table 1 Figure 1)

   In North America, the majority of Siberians (91%) are descended from nine animals. The worldwide captive population of 756 in 196 zoos must also be inbred when 97% are captive bred. But the graph does look promising, at least on the surface.

2. Clouded Leopard (Table 2, Figure 2)

   The average number of 2.4 per zoo and a total of 136 animals in 57 zoos remains too low, too scattered. The breeding curve has risen consistently, crossing over the wild import one,which is encouraging. The number of animals is still very low.

3. Snow Leopard (Table 3, Figure 3)

Acqisitions from the wild have virtually stopped. The breeding curve has risen steadily even though infant mortality was high. The cross-over point between captive bred and wild imports was reached in 1976. The average of 3.5 animals in 46 zoos with a total population of 161 allows for guarded optimism.

4. Cheetah (Table 4, Figure 4)

Even though the total number of captive animals is declining slowly the breeding curve is rapidly growing. There are now 4.2 cheetahs on average in 138 zoos and a total of 586 in captivity. A broad-based gene pool with promise.

The primates are all listed on Appendix I and II. The great apes are still very much in demand by the non-zoo trade. In 1973, 270 chimpanzees were exported from Sierra Leone and eventually a ban was placed on chimp exports in 1978. But in December of that year, ten baby chimps were confiscated at Amsterdam airport on their arrival from Sierra Leone. In the last four years, the United States has not issued a single import permit for chimpanzees.

The breeding record of the great apes in captivity is not too discouraging when you consider the age of sexual maturity and the fact that a breeding female may have only four or five young in her lifetime. For animals with such low breeding potential, zoos have done well with at least chimpanzees and orangutans.

5. Orangutans (Table 5, Figure 5)

   The birth rate has increased markedly over the past years. A total population of 722 divided between 162 zoos, still too many, with an average of 4.4 per collection. Future promising.

6. Gorilla (Table 6, Figure 6)

   Not so for the gorilla. The birth curve is increasing very slowly, well below what is required to compensate for normal losses and infant mortality. 78% wild caught versus 47% for orangutans. This species should cause us all great concern.

7. Golden Lion (Table 7, Figure 7)

   I did not want to end the analysis of primates in zoos on a negative note. Another species, with once an even more desperate situation of low numbers combined with restricted range and habitat loss, has made a comeback. It proves what careful scientific management, interzoo cooperation, mortality factor analysis and active studbookkeeping can do. Percentage captive bred 84%, total number 137 in only 14 collections or 9.8 per zoo, many of them in Washington and nearby Front Royal.

I would like to conclude this section with two ungulates: the onager and the Arabian oryx. Both species have made great progress in the last five years. In 1971 the onager population in zoos was decreasing sharply (Table 8, Figure 8)- 53% captive bred with 3 onagers on average in 44 zoos but today: 85% captive bred with 4.6 per collection in 34 zoos. The onager's future seems brighter. The Arabian oryx (Table 9, Figure 9), like the Golden Lion tamarin, shows what can be done under conditions of excellent management when a few dedicated zoos pool their resources. With more than 20 oryxes in 6 collections for a total of 122- three times the population ten years ago. If the re-introductions in Jordan and the Far East succeed, this species will have recovered its numbers to a significant level.

Figure 10 illustrates the three phenomena we have discussed. 1. Captive populations with a high percentage of wild-caught individuals; 2. Other species with a small number of wild-caught animals and a large captive population; and 3. those making the transition. Tables and graphs unfortunately do not indicate inbreeding coefficients unless infant mortality is automatically interpreted as such. Nor do they show the zoos breeding too many from too few. Such an intense input from one well-intentioned zoo could prove to be disastrous to that rare species in the long run.

I hope and I believe that CITES will produce. indirectly, more gorillas and clouded leopards. The acquisition of animals from the wild is going to become much more difficult inevitably, and the impact of CITES on zoos will be minimal compared with the result of habitat loss which means fewer animals in the wild. CITES will also affect the prices of live specimens, making it all the more important not to lose the sales value of the offspring through careless husbandry or genetic ignorance. We need still better records, more careful studbook analysis, studbooks on more species- CITES has generated yet another form of paperwork for zoos, but one vital to our success. Already records, thanks to the Yearbook questionnaire, ISIS and the studbooks, have improved noticeably since Jersey. CITES should serve as an ally and a warning to zoos- reducing the effect that the non-zoo trade and the demands of the luxury market in products has on wildlife. We may not be able to save more than a small percentage of endangered species through careful captive management, but we can at least stave off extinction for many species for many years to come- thanks to CITES.

Panthera t. altaica	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	36	41	49	50	51	66	71	77	84	89	95	98	100	179	196
Total population	104	116	149	162	191	224	248	296	325	356	404	460	450	677	756
Captive bred	73	66	87	109	140	161	192	253	291	313	359	422	411	652	731
Percent captive bred	70	57	58	67	73	72	77	85	90	88	89	92	91	96	97
Births (surviving)	21	28	28	43	58	59	75	71	101	125	135	114	65	123	--
Individuals per collection	3	3	3	3	4	3	3	4	3.9	4	4.3	4.7	4.5	3.8	3.9

BEST AVAILABLE COPY

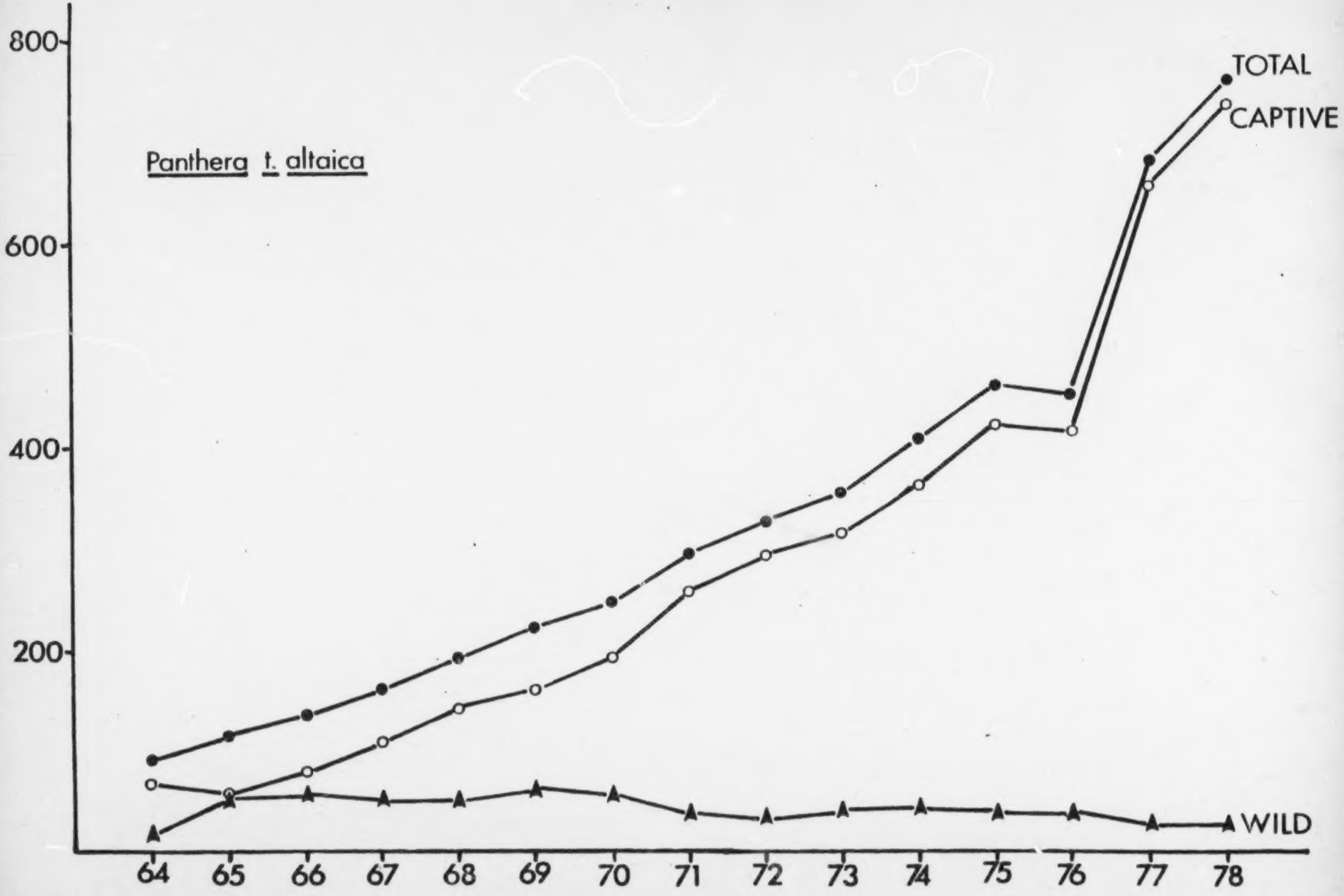

Panthera t. altaica
800
600
400
200
TOTAL
CAPTIVE
WILD
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78

Fig. 1

Neofelis nebulosa	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	22	33	33	41	44	ND	50	51	53	51	51	52	56	53	57
Total population	36	56	68	81	83	ND	111	107	113	112	125	113	135	141	136
Captive bred	3	3	4	14	15	ND	28	30	31	30	42	38	47	60	68
Percent captive bred	8	5	6	17	18	ND	25	28	27	27	33	34	35	43	50
Births (surviving)	2	1	8	7	6	13	7	2	3	12	10	13	12	10	--
Individuals per collection	1.6	1.7	2.1	2	1.9	ND	2.2	2.1	2.1	2.2	2.5	2.2	2.4	2.7	2.4

BEST AVAILABLE COPY

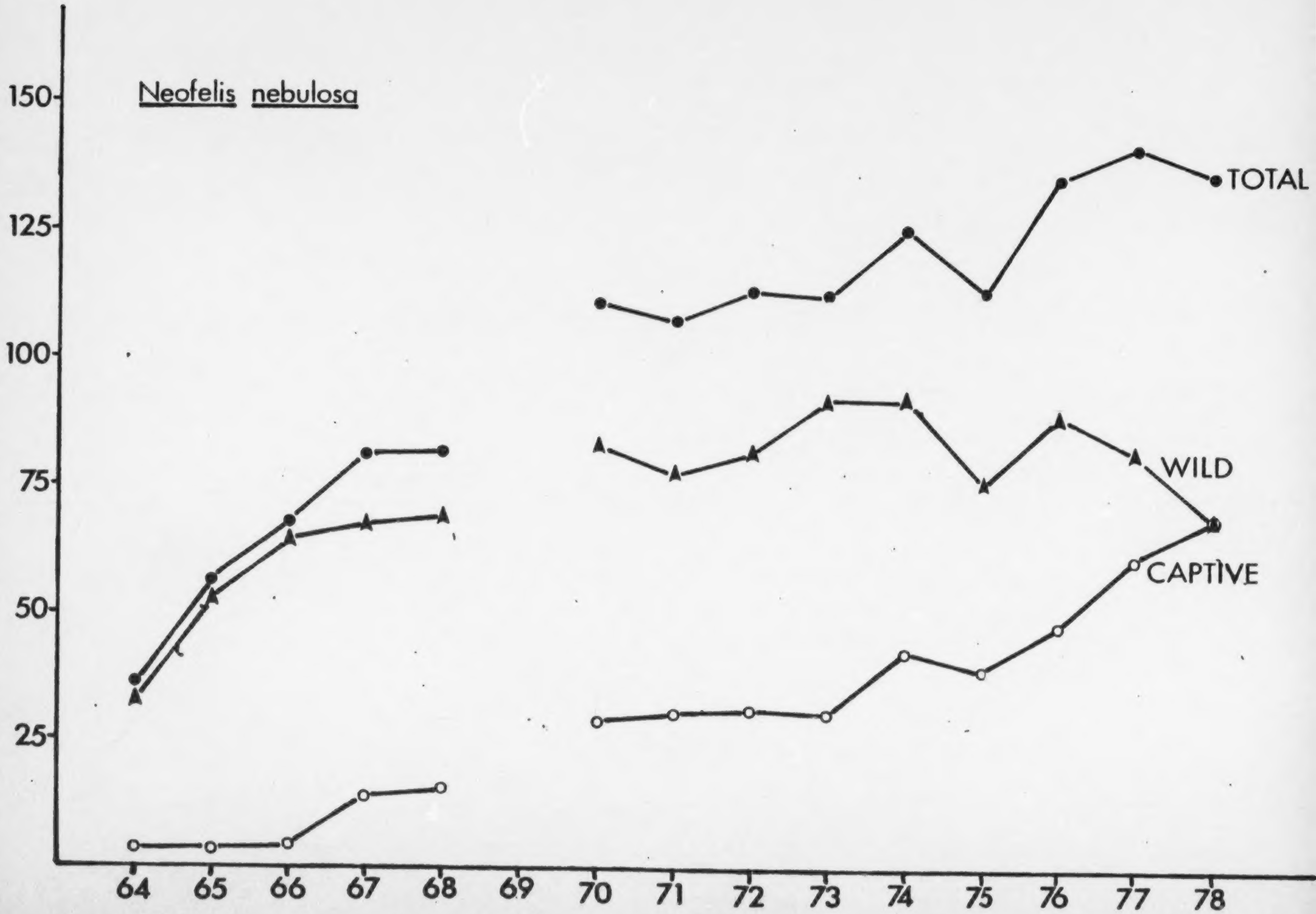
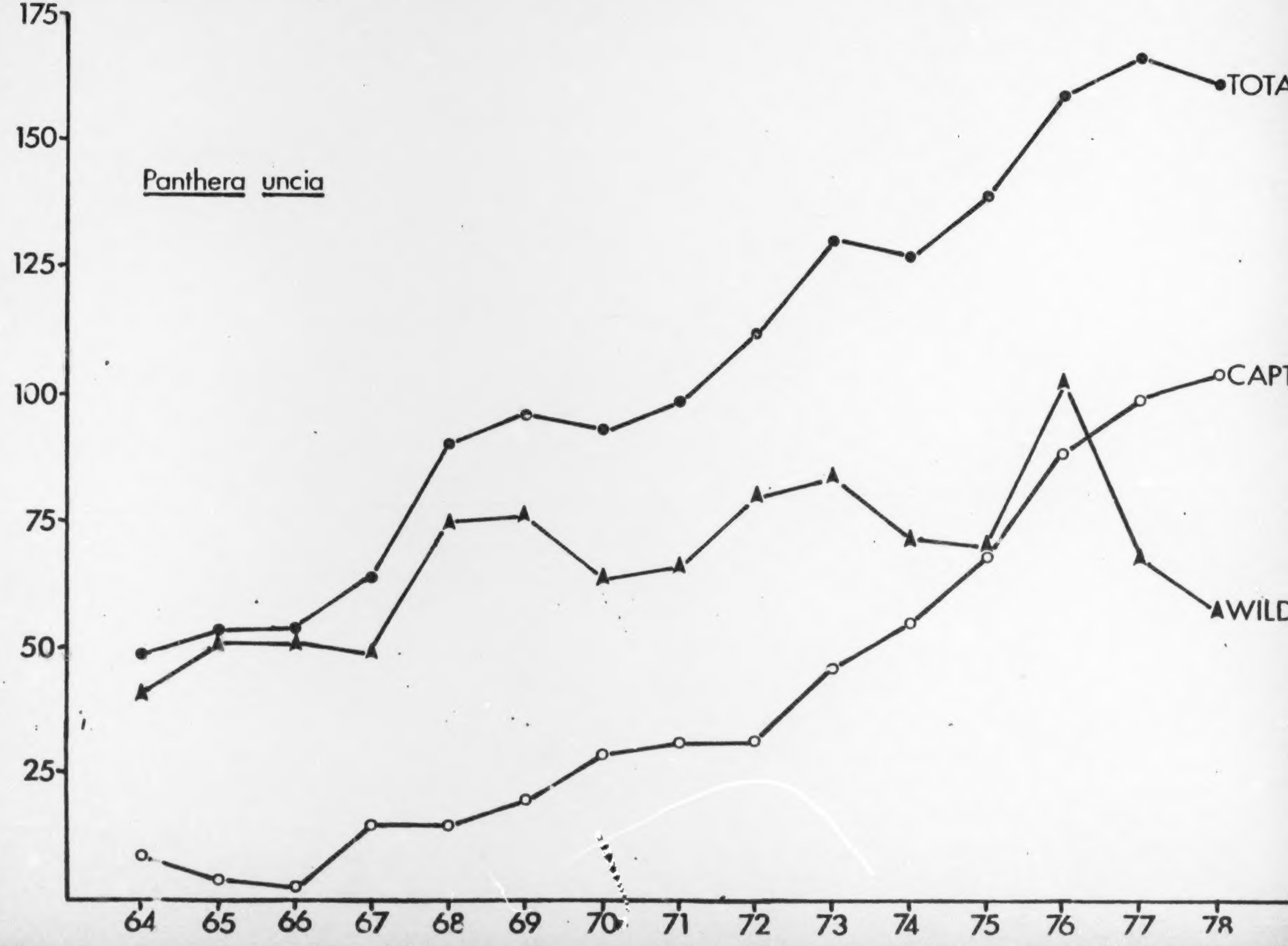

Neofelis nebulosa
150
125
100
75
50
25
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
TOTAL
WILD
CAPTIVE

Fig. 2

Panthera uncia	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	27	28	28	33	39	42	39	44	45	50	47	45	45	52	46
Total population	49	54	65	64	90	96	95	98	112	130	127	139	159	167	161
Captive bred	8	4	3	15	15	20	29	31	32	46	55	68	89	99	104
Percent captive bred	16	7	6	23	17	21	31	32	29	35	43	49	56	59	65
Births (surviving)	3	1	6	15	7	10	7	12	12	14	20	24	15	25	--
Individuals per collection	2	2	2	2	2	2	2	2	2.5	2.6	2.7	3.1	3.5	3.2	3.5



175
150
125
100
75
50
25
Panthera uncia
TOTA
CAPT
WILD
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78

Fig. 3

Acinonyx jubatus	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting									122	133	139	141	135	146	138
Total population									403	521	597	652	604	645	586
Captive bred									23	39	76	102	131	177+	185+
Percent captive bred									6	7	13	16	22	27	32
Births (surviving)									15	28	31	62	50	37	--
Individuals per collection									3.3	3.9	4.8	4.6	4.5	4.1	4.2

BEST AVAILABLE COPY

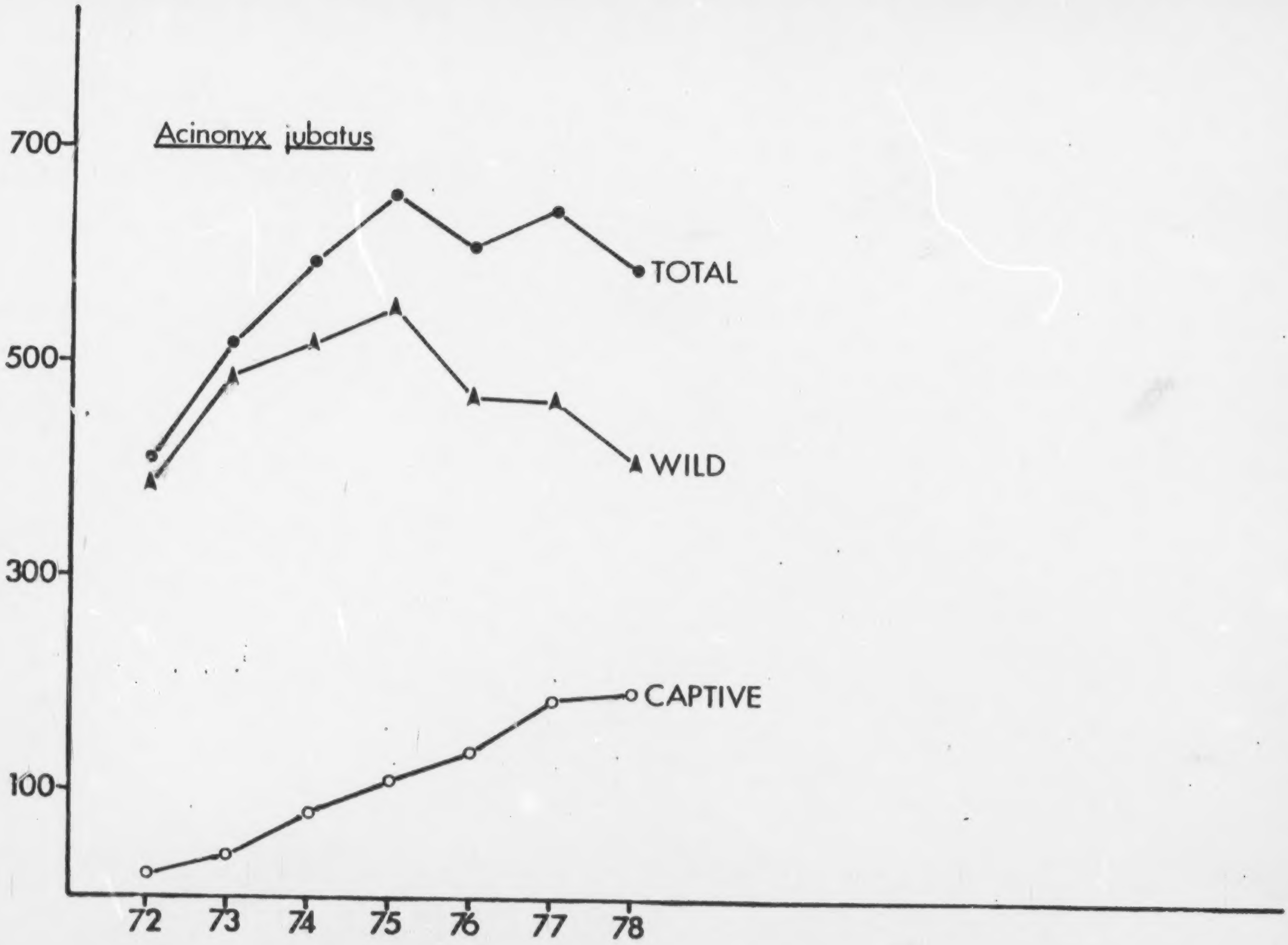

Acinonyx jubatus
700
500
300
100
TOTAL
WILD
CAPTIVE
72
73
74
75
76
77
78

Fig. 4

Pongo pygmaeus	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	96	107	120	141	120	119	117	128	125	127	131	153	128	163	162
Total population	278	349	389	438	434	455	469	539	556	578	625	620	648	678	722
Captive bred	37	44	46	55	68	81	112	152	165	194	226	241	279	320	341
Percent captive bred	13	13	12	13	16	18	24	28	30	34	36	39	43	47	53
Births (surviving)	6	9	21	19	28	28	30	38	31	42	29	32	36	53	--
Individuals per collection	3	3	3	3	4	4	4	5	4.4	4.6	4.8	4.1	5.1	4.2	4.4

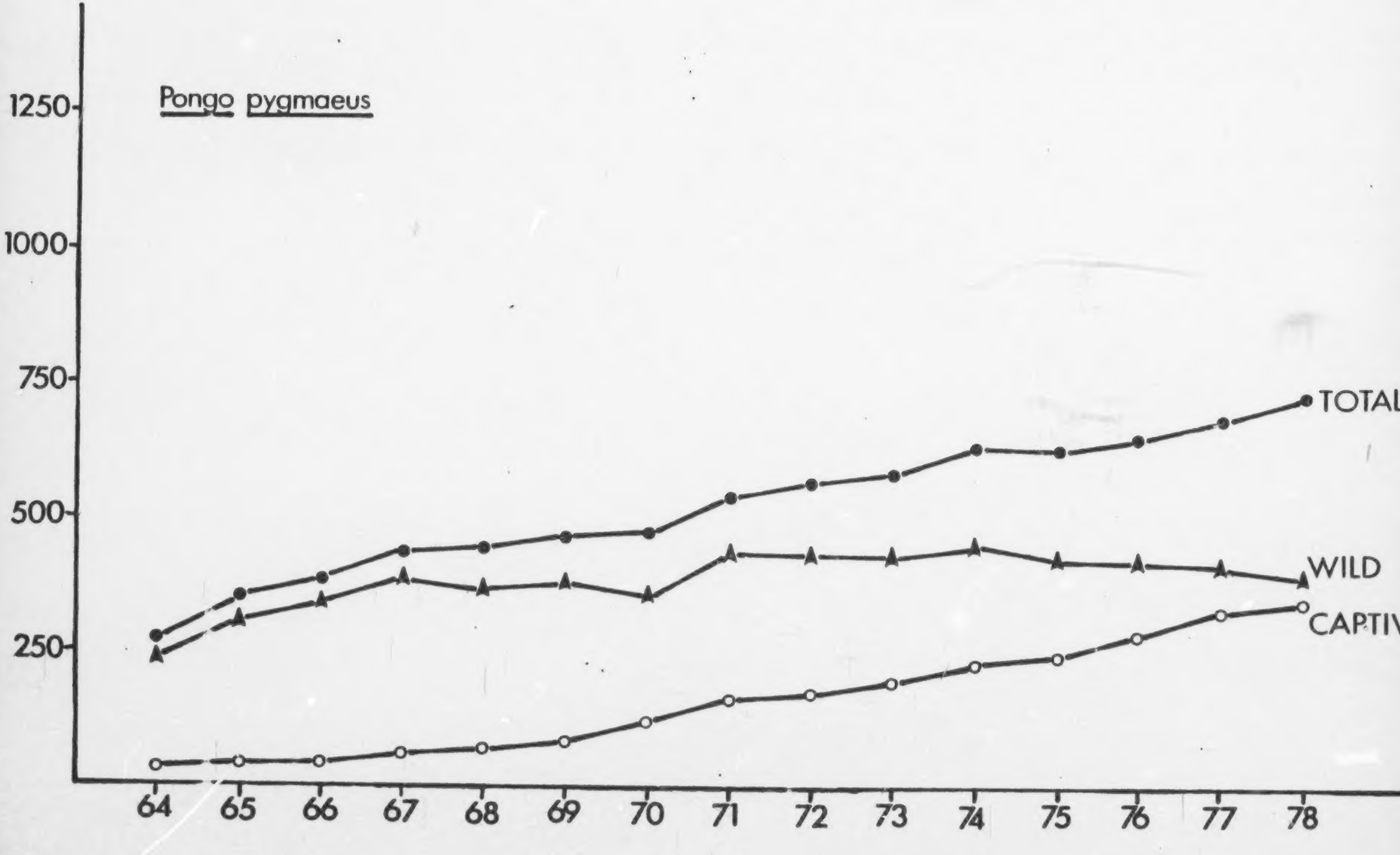

Pongo pygmaeus
1250
1000
750
500
250
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
TOTAL
WILD
CAPTIV

Fig 5

Gorilla g. gorilla	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	68	71	87	92	97	94	97	100	101	110	111	112	110	117	115
Total population	170	219	259	289	294	299	319	331	338	363	374	417	424	442	457
Captive bred	6	8	9	13	16	17	24	29	39	47	53	71	81	87	101
Percent captive bred	4	4	3	4	5	6	8	9	12	13	14	17	19	20	22
Births (surviving)	2	3	2	4	3	6	8	11	11	9	16	14	15	10	--
Individuals per collection	2.5	3.1	3	3.1	3	3.2	3.3	3.3	3.3	3.3	3.4	3.7	3.9	3.8	4

BEST AVAILABLE COPY

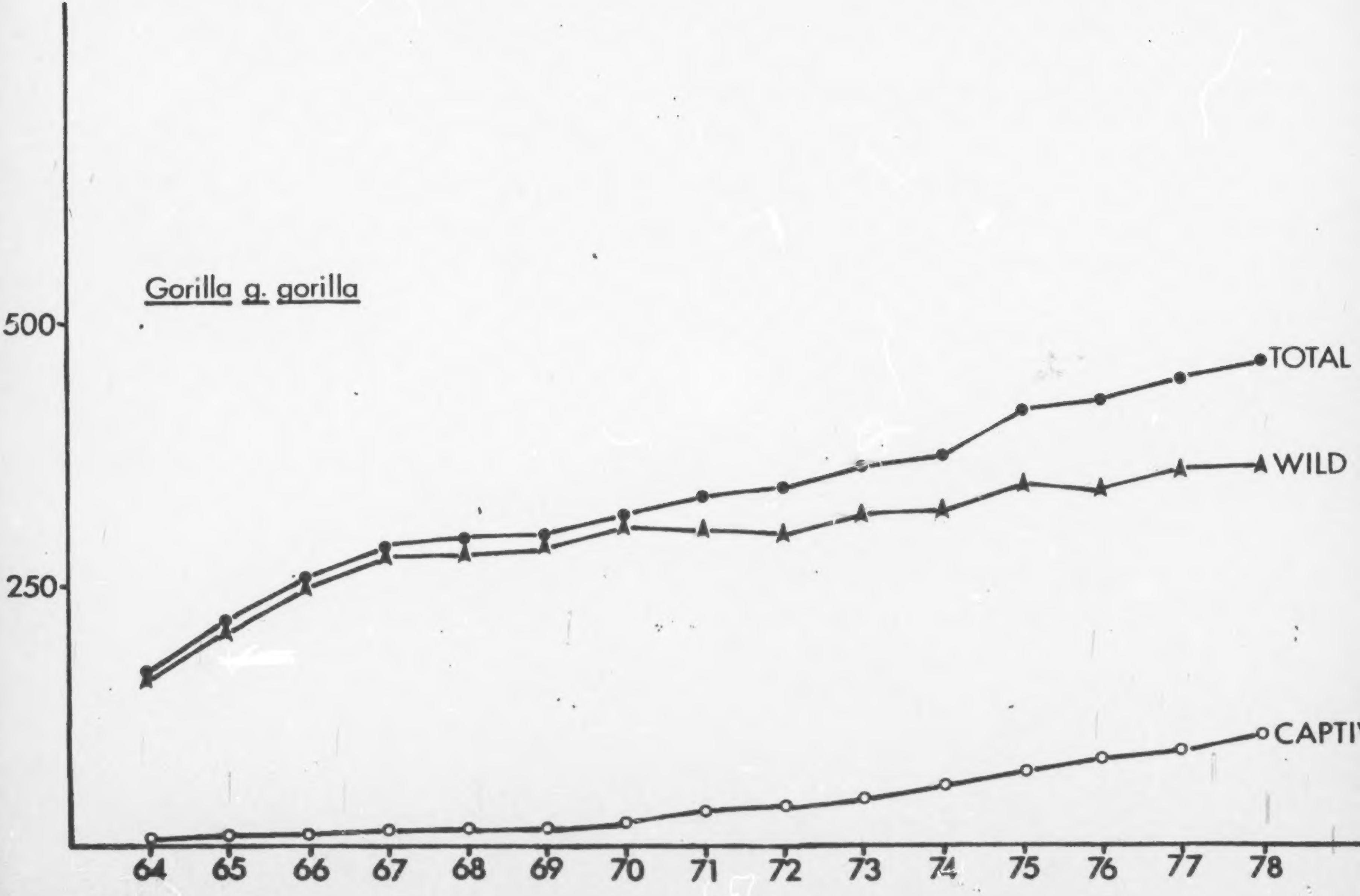

Gorilla g. gorilla
500
250
TOTAL
WILD
CAPTIV
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78

Fig. 6.

Leontopithecus r. rosalia	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	ND	ND	23	27	28	24	23	20	17	14	15	13	15	13	14
Total population	ND	ND	72	99	102	96	84	76	75	71	83	80	83	82	137
Captive bred	ND	ND	6	8	19	22	34	39	43	44	61	55+	67	68	115
Percent captive bred	ND	ND	8	8	19	23	40	51	57	62	73	67	81	83	84
Births (surviving)	5	7	5	10	10	18	11	21	10	13	14	12	23	32	--
Individuals per collection	ND	ND	3	4	4	4	4	4	4.4	5.1	5.5	6.2	5.5	6.3	9.8

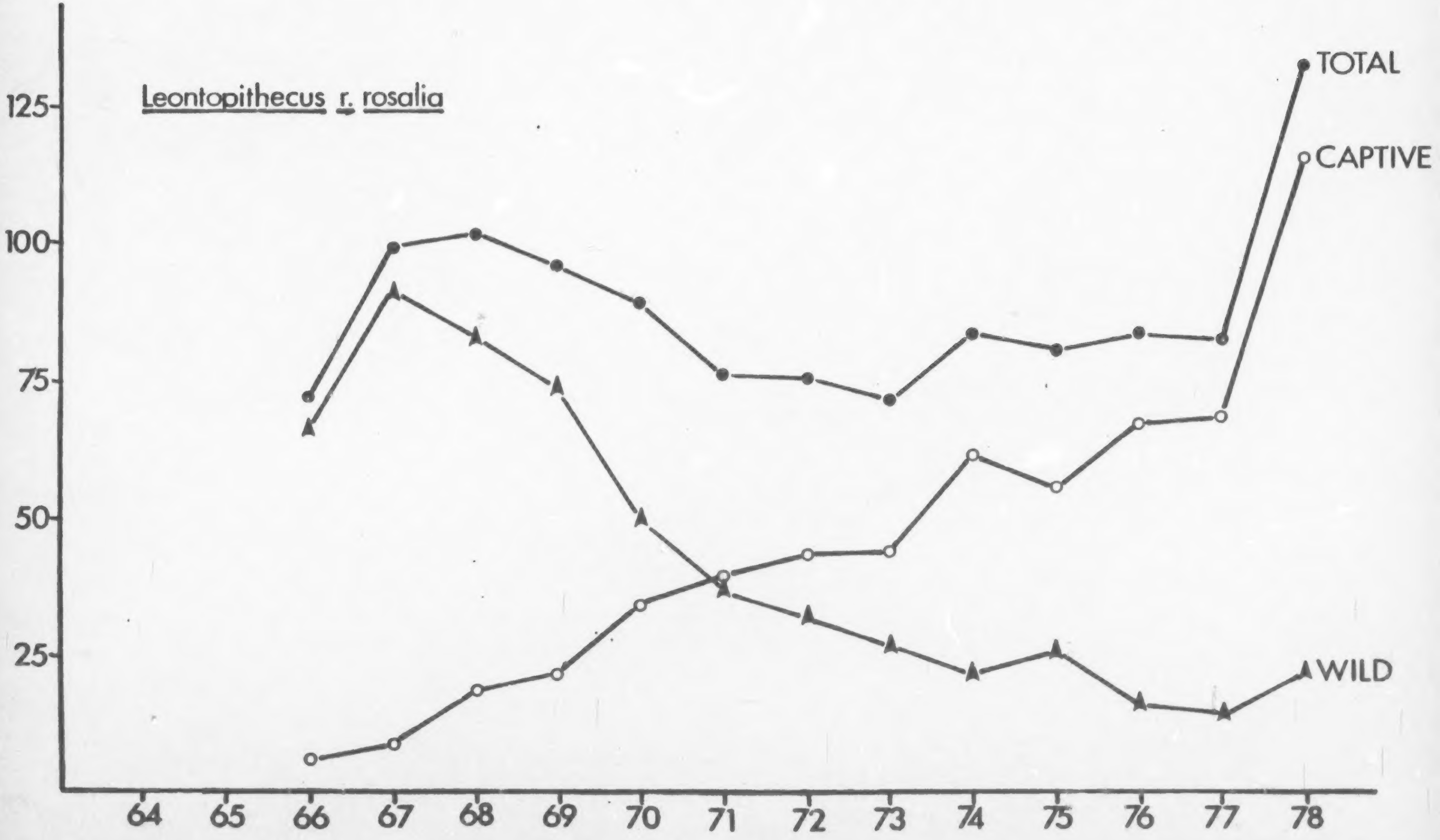

Leontopithecus r. rosalia
125
100
75
50
25
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
TOTAL
CAPTIVE
WILD

Fig. 7

Equus h. onager	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	26	33	38	39	32	37	43	44	34	32	35	32	31	33	34
Total population	89	113	135	150	118	132	145	139+	105	115	125	132	142	143	156
Captive bred	34	34	61	76	65	56	77	74	77	86	91	113	124	127	132
Percent captive bred	38	30	45	51	55	42	53	53	73	75	73	87	87	89	85
Births (surviving)	6	18	15	14	13	14	14+	6	17	15	12	18	17	11	--
Individuals per collection	3	3	4	4	4	4	3	3	3.1	3.9	3.6	4.1	4.9	4.3	4.6

BEST AVAILABLE COPY

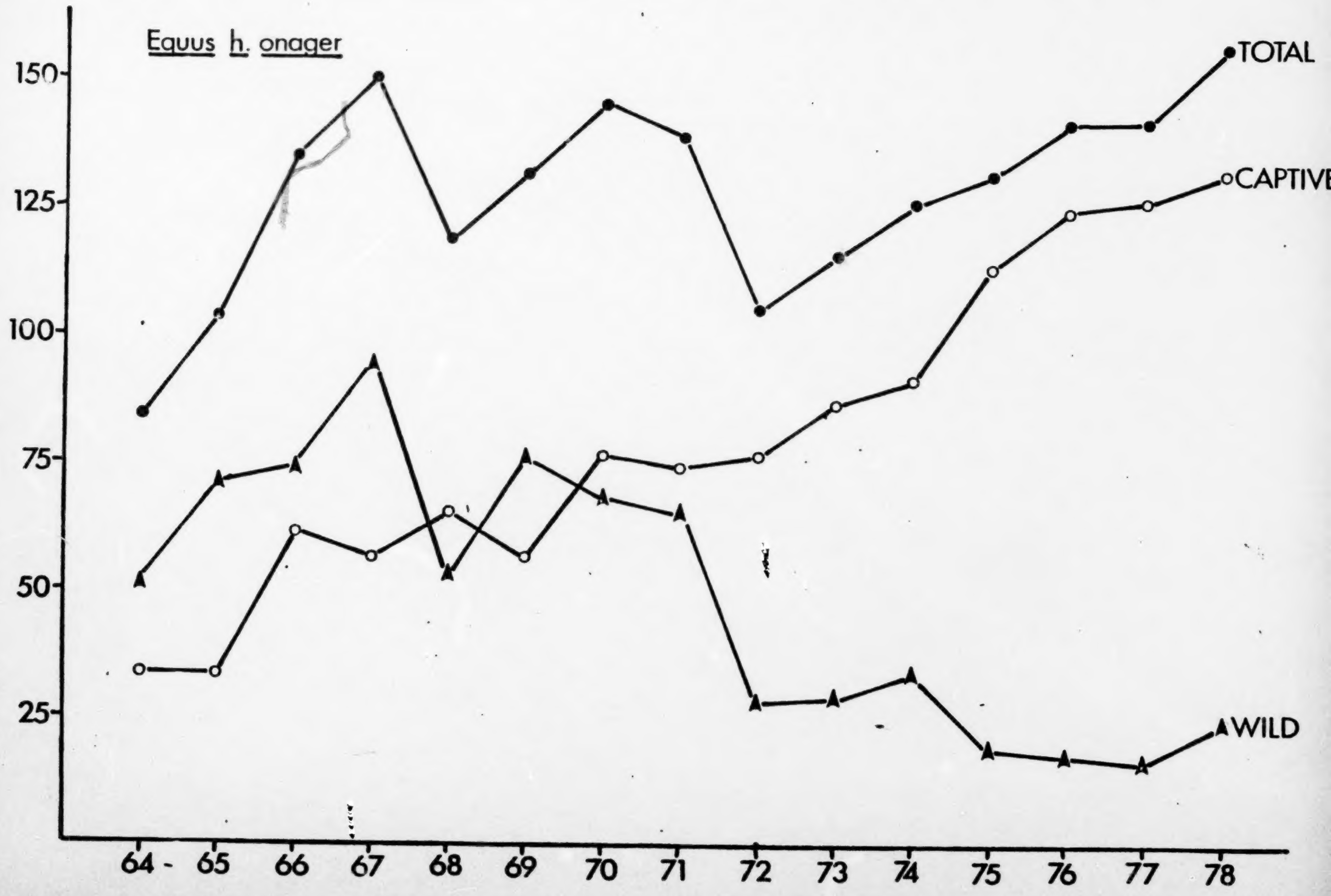

Equus h. onager
150
125
100
75
50
25
64 -
65
66
67
68
69
70
71
72
73
74
75
76
77
78
TOTAL
CAPTIVE
WILD

Fig. 8

Oryx leucoryx	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
No. zoos reporting	4	4	5	5	6	5	4	4	3	3	5	3	7	7	6
Total population	27	27	39	49	44	48	58	75	43	49	66	62	99	98	122
Captive bred	2	7	10	9	9	18	18	49	34	17+	56	59	90	90	114
Percent captive bred	7	26	26	18	20	38	31	65	79	35+	85	95	91	92	93
Births (surviving)	2	3	3	1	5	4	6	9	3	11	12	14	19	25	--
Individuals per collection	7	7	8	10	7	10	15	19	14.3	16.3	13.2	20.1	14.1	14	20.3

BEST AVAILABLE COPY

Table

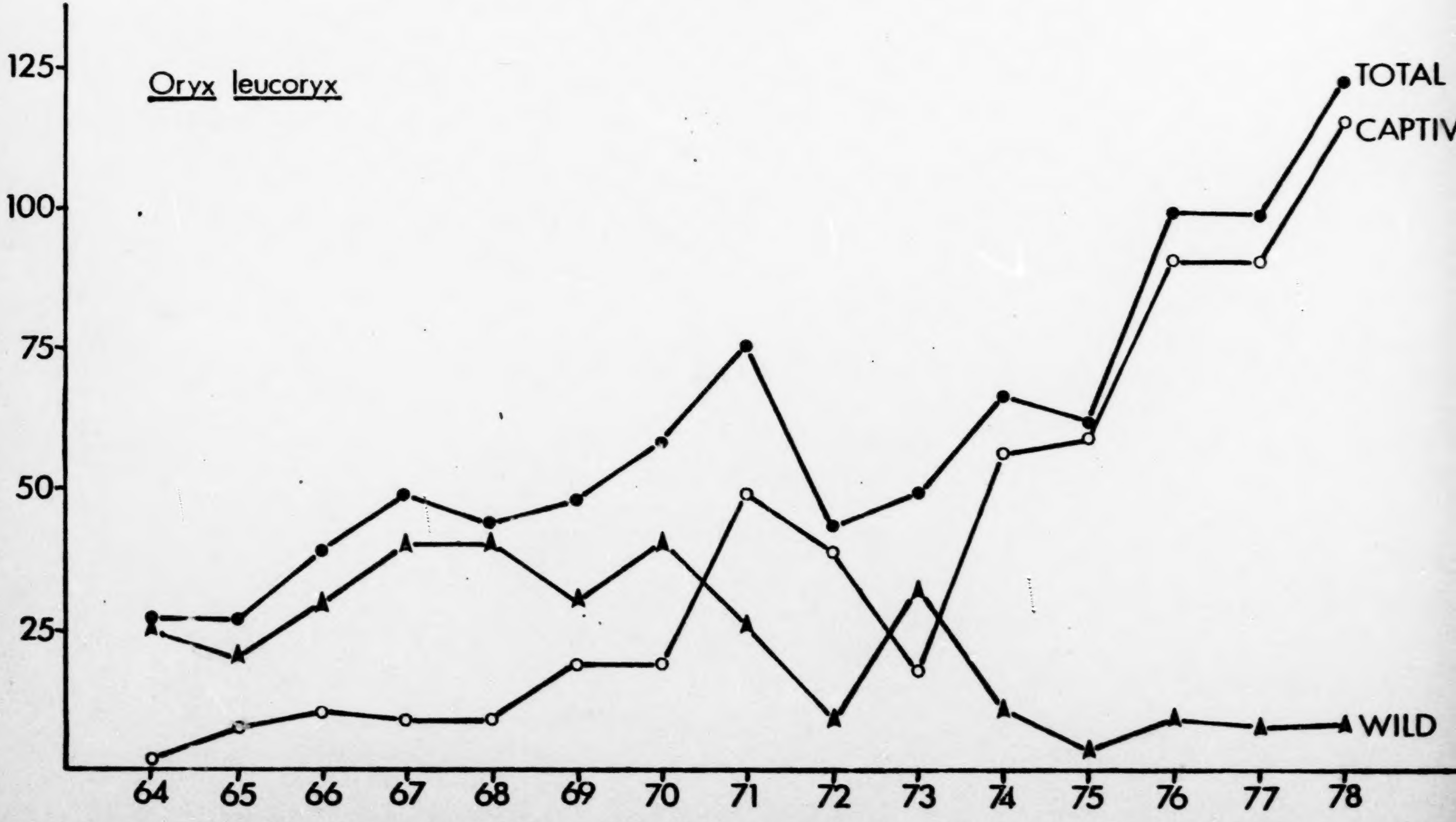

Oryx leucoryx
TOTAL
CAPTIV
WILD
125
100
75
50
25
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78

Fig. 9

TRAFFIC (U.S.A.)

1601 Connecticut Avenue N.W.   Washington, D.C. 20009   Telephone (202) 797-7901   Cable PANDAFUND   Telex 64505

TRAFFIC (USA) COMMENTS ON
THE LACEY ACT AMENDMENTS

submitted to the

HOUSE SUBCOMMITTEE ON MERCHANT MARINE FISHERIES

March 13, 1980

WORLD WILDLIFE FUND-U.S.

TRAFFIC (U.S.A.) – Trade Records Analysis of Flora and Fauna in Commerce – is a scientific information-gathering program monitoring trade in wildlife, plants, and their products. It is funded by World Wildlife Fund-U.S.

TRAFFIC (USA) is a scientific, information gathering organization monitoring trade in wild fauna and flora. Funded entirely by the World Wildlife Fund-U.S., TRAFFIC is a Specialist Group of the Survival Service Commission (SSC) of the International Union for the Conservation of Nature and Natural Resources (IUCN).

Our testimony supports the proposed amendments to the Lacey Act. Most prosecutions under the Lacey Act have involved only the transport of wildlife across state lines within the United States, i.e. violation of state regulations rather than those of international commerce. Obtaining sufficient evidence to prosecute international violators successfully has been the main stumbling block. But now the proposed amendments, providing for increased civil penalties, lowering the culpability standards, detailing the civil penalty procedure so that court cases are handled more uniformly, and increasing penalties, will help make the Lacey Act an enforceable, effective legislative tool. The inclusion of a well-defined strict liability forfeiture clause, which gives the Secretary of Interior the ability to confiscate any illegal wildlife and wildlife products will also be a welcome addition to the Act.

These proposed amendments are essential if the internatonal trade in wildlife is to be effectively regulated. According to the Fact Sheet from the President's Second Message on the Environment (August 2, 1979), approximately 200,000 documented wildlife shipments and their products were imported to the United States in 1978; at least 10,000 of these shipments contained endangered or threatened wildlife (CITES Appendix I or II species and their products). Official Department of Commerce statistics show that the U.S. imported over 3 million live mammals and reptiles and 600,000 live birds in 1978 (Table 1). The exact number of zoo and aquarium specimens is not available, but based on the total value of under $400,000, zoo involvement is negligible compared to the $29 million worth of live mammals, reptiles, tropical fish, and shellfish destined for the pet trade and private and government research institutions.

The Customs import values are based on the importer's buying price, i.e. what the person pays for the wildlife in a foreign country, and are, in fact, only a fraction of the ultimate retail price. For example, Psittacine birds such as macaws, parrots, etc., are categorized in Table 1 under "Birds, Not Elsewhere Specified (NES), Value greater than $5." The average price per bird in this category is $25; thus, profits are immense since parrots and macaws in the U.S. sell for hundreds, sometimes thousands of dollars.

The profits for live wildlife in trade also extends itself to wildlife products. For example, lynx furskins were imported for just under $290/skin in 1978. It takes approximately 10 furs to make a lynx coat or approximately $2,900 worth of imported skins. Presently, the retail price of a lynx coat is around $10,000. For this reason, the total dollar amounts listed below and in Tables 1 and 2 represent, in most cases, only 1/3 or less of the final retail values.

The value of all wildlife and its products imported into the United States in 1978 and for the first eight months of 1979 was $300 million and $230 million, respectively (Tables 1 and 2). Buyers and manufacturers imported $23 million worth of raw hides and leather (mostly from reptiles), well over 16 million furskins

BEST AVAIL

(import value of $48 million), and almost 12 million pounds of bird feathers and down (import value of $70 million). In addition, almost $7 million of shell articles, over 9 million pounds of crude marine shells, 1½ million pounds of coral and sponges, almost 400,000 mounted and stuffed animals (including game trophies), 20,000 pounds of elephant ivory tusks and $7 million of ivory articles were imported by the U.S. in 1978 alone (Table 2).

We support the suggested amendment to include all vertebrate and invertebrate animals in the Lacey Act. And therefore we applaud the inclusion of corals in the Lacey Act. This will prevent the import of coral originating from the Philippines. In July, 1979, they banned the export of coral due to widespread destruction of their coral reefs. In August 1979 alone, the U.S. imported 40,231 lbs. of coral from the Philippines, and before that, from January to August, we imported 484,261 lbs.

One must realize that wildlife laws are only as effective as their enforcement. For instance, in July 1978, Fish and Wildlife regulations (50 C.F.R., Section 17.40 (e)) went into effect allowing the import of elephant ivory only from countries party to CITES. From January to August 1979, the U.S. imported 2,918 lbs. of ivory tusks from Zambia and 43,122 lbs. of ivory articles from the Philippines, Mainland China, Taiwan, Korea, and New Zealand (Customs Official Statistics). And yet, not one of these countries is party to the CITES. Many 3-177 Declaration of Import forms and CITES permits are not complete and often do not provide the country of origin as required by the Convention. Enforcement is lax and the documentation leaves much to be desired (refer to Mike Bean letter to Clark Bavin, Appendix I).

BLE COPY

Difficulty still exists in prosecuting persons who violate Lacey Act regulations overseas. The provisions of wildlife laws of foreign countries, vital documentation for effective enforcement of the Act, are not kept current or readily available by any federal agency we contacted. We were told that such an endeavor would be too costly, too time consuming, and the delay required to seek out the most current wildlife laws would probably make the original query outdated. At the moment interagency inquiries into international regulations are dealt with on a piecemeal basis.

TRAFFIC(USA) visited several ports of entry over the last year, and most Inspectors and Special Agents contacted expressed their real concern at not being able to obtain foreign wildlife law information quickly. For instance, when a shipment is suspect of a Lacey Act violation, accurate knowledge of the foreign export law or decree by the country of origin would be vital evidence in establishing the legality of the documents accompanying the shipment in question.

Furthermore, officials of U.S. embassies in other countries can not identify protected wildlife or provide interpretations or even lists of current U.S. or foreign wildlife laws. This is documented in a Fish and Wildlife Service Report by Terry Grosz, Special Agent for Law Enforcement (see attached Conclusion of report in Appendix II) who contacted U.S. embassies in Southeast Asian countries only to learn that our attaches had little or no knowledge of the wildlife laws of that country. We suggest serious consideration be given to establishing a network of technically qualified persons stationed abroad and working in cooperation with the U.S. Department of State. Such officials could serve as accessible sources of

BEST AVAI

accurate information on the status of wildlife and the laws pertaining to trade or other utilization. This would facilitate implementation and enforcement of the Lacey Act, particularly as it relates to developing countries. TRAFFIC(USA) originally suggested such a course of action before the Senate Subcommittee on Resource Protection last November during the Lacey Act Amendments hearing. We were amazed to see our suggestions incorporated only three months later into a proposed Bill by Senators Chafee and Culver to be known as "The International Wildlife Resources Conservation Act of 1980."

There exists a widespread and growing concern in the developing nations to control exploitation of wildlife and to promote a wise and rational program for the use of their living resources. This concern was eloquently addressed at the 1979 CITES Conference in Costa Rica. The delegate from Brazil claimed that her country was unable to effectively monitor its vast borders and control experts. She requested assistance from other nations - particularly developed, consumer nations - by prohibiting the import of Brazilian specimens of wildlife that are being taken and exported unlawfully. And indeed, this delegate's remarks are well founded when you consider the staggering amounts of wildlife imported by consumer nations.

Closer to home, the United States was responsible for the import of 260 million tropical fish in 1978, a figure issued by the Law Enforcement Division (FWS). A large proportion of these are captive bred in specialist fish farms overseas, but the remainder have been removed from the waters of source nations. Both fresh and marine fish are brought into the United States

BLE COPY

in water-filled containers with up to 300 fish per plastic bag. The federal inspectors freely admit that spot checking of these shipments rarely takes place, and they can not count the numbers or identify the species listed on the import permits. For this reason, it is easy for endangered fish or species protected by source countries to be included in these shipments. There are just too few agents to handle the large volume of all live wildlife and its products entering the United States. For example, in Miami, there are only two inspectors and three Special Agents of the FWS to handle all incoming wildlife 24 hours a day, 7 days a week.

An unexpected side effect of wildlife imports can be their accidental introduction into our ecosystem. The problems of such potential "injurious" introductions have not been addressed in the new Lacey Act amendments, and in fact, the term "injurious" has not been defined in the Lacey Act or the code of federal regulations except in Part 16 which mentions but does not qualify the term.

We have several pertinent examples of foreign wildlife and plants having been accidentally introduced, then proving to be detrimental and difficult to eradicate. In the mid-1960s, the exotic species of walking catfish Clarias batrachus escaped from a fish farm during a heavy rain and since then has proliferated spectacularly. It now inhabits many lakes and canals in Florida, eating native fish, including sport fish like bass and bluegill. Mammals have also been introduced and become established: the nine-banded armadillo from Mexico escaped from captivity in Florida and is now estimated to number in the thousands. There are also 26 foreign species of birds that are now part of our resident fauna. Hitherto, the Lacey Act exempts psittacine birds from the "injurious" wildlife section. We already have one parrot introduction, the Monk parrot (*Myiopsitta monachus*), which has proved to be an agricultural pest in the Northeastern United States. We are also concerned about others being introduced and spreading avian tuberculosis and Newcastle disease.

Plants are also considered to be "injurious" wildlife. The water hyacinth and hydrilla cost the United States $15 million a year to eradicate. The hyacinth from Brazil now covers 200,000 acres of Florida's canals and lakes. It impedes boat traffic and shades out other plant life, monopolizing the aquatic flora ecosystem. The hydrilla from Malaysia and Africa has a growth rate of an inch a day, and is known to inhabit 150,000 acres of waterways in Florida, overwhelming native aquatic plant life. The Department of Interior is currently developing new Injurious Wildlife regulations. We urge that a deadline be set for the release of the new regulations, hoping that they will clarify some of the aforementioned problems.

In view of the possible, even probable, introduction of injurious wildlife and plants in the future, we would like you now to consider a provision in the proposed Lacey Act amendments to include plants. A major purpose of the existing Lacey Act is to strengthen and supplement state and foreign wildlife conservation laws regulating harvest and trade. A similar provision should be made to support state and foreign plant conservation laws. Controls are needed now. Public interest in rare plants for horticultural purposes is skyrocketing. For example, Figures 1 and 2 show that both the volume of orchid imports and the number of foreign countries exporting orchids into the United States have doubled in the last 10 years. Similar data can be provided for other plant groups such as cacti and succulents, carnivorous plants, and cycads. Many species are in danger of being completely wiped out from their natural habitats by unscrupulous amateur collectors.

To a large extent, new state and foreign efforts to control harvest and trade in wild plants are proving ineffective because they are not complemented by appropriate federal controls. For example, Arizona law requires that cacti be identified by state tags prior to export from the state. However, despite aggressive enforcement efforts, illegally obtained Arizona cacti are routinely offered for sale throughout the U.S. and other countries including Germany and Japan. Federal support for state harvest controls is particularly important, because the Endangered Species Act does not prohibit the state harvest of endangered plants.

Similar to the efforts made by the states, many foreign countries are also trying to protect their native flora, but lack of resources to implement effective export controls allow an extensive illegal trade to the United States. For example, the Australian Flora Protection Act (No. 37) of 1938 lists Cephalotus follicularis, a native Australian pitcherplant, as endangered and prohibits its export. In January, 1978, a shipment of two cartons consisting of 750 Cephalotus follicularis arrived in New York. Even though these plants were smuggled out of Australia, U.S. officials were powerless to confiscate them since no "Lacey Act" authority exists to deal with plants that are taken or traded illegally.

President Carter recently ordered increased efforts to enforce trade controls for plants. He established a special interagency task force to investigate the illegal trade in plants and to initiate prosecutions. He ordered the U.S. Department of Agriculture to hire special agents to investigate the illegal plant trade. In addition, the Department of Justice has established a new division of wildlife enforcement. Modification of the Lacey Act to include plants would provide timely support to these initiatives.

The proposed amendments of the Lacey Act would not require major federal expenditures or the establishment of costly federal programs. Enforcement of the proposed amendments could be accomplished through existing USDA and USDI programs for enforcing trade controls of the Endangered Species Act, the CITES, the Injurious Plant Control, and the existing Lacey Act. Extending coverage of the Lacey Act to plants would provide a unifying framework for state, federal and foreign laws, thereby facilitating enforcement efforts.

To conclude, TRAFFIC(USA) would like to state that the Lacey Act is potentially one of the most effective pieces of conservation legislation this country possesses. The concept of U.S. federal "back up" of state and foreign laws is unique and could provide a very efficient operation. Important differences exist between the Lacey Act and the Convention on International

Trade of Endangered Species of Wild Fauna and Flora (CITES). First, the Lacey Act addresses interstate trafficking of wildlife within the U.S., an issue not covered in the CITES. Second, the CITES is still in its infancy and violations of its regulations occur daily. Many countries party to the Convention are unable to control the export of Appendix I (endangered) species and their products. For instance, 17 CITES countries still export sea turtle products, and yet all sea turtles are placed on CITES Appendix I. Without the proposed amendments to the Lacey Act to help other countries protect their wildlife and plants, the U.S. hinders wildlife conservation efforts overseas. With the proposed amendments and a system whereby current, accurate information is available to those who implement the Act, we feel the U.S. could work much more efficiently with the states and other nations to insure the effective conservation of the world's renewable resources.

BEST AVAILABLE COPY

TABLE 1

U.S. WILDLIFE IMPORTS:

LIVE ANIMALS

ITEM	1978 QUANTITY	1978 VALUE ($)	NO. OF EXP. COUNTRIES	(Jan - Aug) 1979 QUANTITY	(Jan - Aug) 1979 VALUE ($)
MONKEYS	28,778	1,061,552	26	14,821	643,736
TURTLES	36,972 LBS	45,503	17	6,523 LBS	18,007
FOXES, SILVER OR BLACK	78	19,376	3	13	6,240
FOXES, OTHER	150	59,505	1	45	5,540
ANIMALS, NES	3,106,629	2,459,730	47	1,657,154	1,476,086
TOTAL LIVE MAMMALS AND REPTILES	3,135,635 +	3,645,666		1,672,033 +	2,149,609
CANARIES, VALUE < $5	11,433	51,543	5	1,555	5,326
CANARIES, VALUE > $5	5,855	45,129	9	7,318	56,265
PIGEONS, FANCY OR RACING	112	8,974	5	30	1,089
GAME BIRDS, FOR STOCKING PURP.	8,092	32,560	1	5,842	34,662
BIRDS, NES, VALUE < $5	324,893	525,379	31	124,814	205,880
BIRDS, NES, VALUE > $5	288,340	7,213,345	49	124,074	3,826,569
TOTAL LIVE BIRDS	638,725	7,876,930		263,633	4,129,791
LIVE FISH OR SHELLFISH (INCL. TROPICAL FISH)	---	17,853,291	47	---	12,636,577
WILD ANIMALS, BIRDS, AND FISH FOR EXHIBITION (ZOO AND AQUARIUM SPECIES)	---	376,593	27	---	217,025

Source: U.S. IMPORTS FOR CONSUMPTION, Bureau of Census, U.S. Dept. of Commerce.

[redacted]

TABLE 2

U.S. WILDLIFE IMPORTS: PRODUCTS

ITEM	1978 QUANTITY	1978 VALUE ($)	NO. OF EXP. COUNTRIES	(Jan - Aug) 1979 QUANTITY	(Jan - Aug) 1979 VALUE ($
FURSKINS, SILVER BLACK, AND PLATINUM FOX	1,217	52,434	5	352	10,861
BEAVER FURSKINS	56,033	921,270	3	50,123	1,623,157
FOX FURSKINS, OTHER	264,158	18,033,036	16	231,316	23,519,524
HARE FURSKINS	3,599,970	1,261,192	4	833,707	220,753
LYNX FURSKINS	15,620	4,495,057	4	14,508	5,188,769
MARTEN FURSKINS	92,692	2,502,789	19	71,727	3,031,060
MINK FURSKINS	3,207,799	80,891,429	19	2,525,629	80,635,387
OTTER FURSKINS	949	68,778	1	473	48,487
RABBIT FURSKINS	3,579,640 LBS	7,651,773	10	3,135,430 LBS	6,599,947
SABLE FURSKINS	141,359	9,365,599	8	113,844	8,340,001
SEAL FURSKINS	1,238	46,185	2	1,110	49,950
WHOLE FURSKINS, NES	1,630,522	14,305,546	23	861,699	13,292,284
FUR TAILS, PAWS, PIECES	---	1,039,444	15	---	538,774
TOTAL RAW FURSKINS	9,011,557+	140,582,098		4,704,136+	143,088,093
FOX FURSKINS, DRESSED, NOT DYED	17,111	390,371	13	11,516	221,810
MINK FURSKINS, DR., NOT DYED	213,130	5,103,385	15	136,870	3,849,160
BEAVER, OCELOT, WOLF, SABLE, ETC., DRESSED, NOT DYED	135,919	3,389,373	13	101,358	2,704,387
CONEY RABBIT FURSKINS, DR.	1,260,746	1,574,974	10	785,704	882,717
FURSKINS, NES, DR.	2,906,448	2,543,881	28	3,013,844	2,769,852
FUR TAILS, DRESSED, NOT INCL. RABBIT	---	1,664,257	17	---	760,077
TOTAL FURSKINS, DR., NOT DYED	4,533,354+	14,666,241		4,049,292+	11,188,003
FOX FURSKINS, NOT SILVER, BLACK, OR PLAT., DRESSED, AND DYED	4,224	147,527	7	5,206	114,499
MINK FURSKINS, DR. AND DYED	6,638	172,904	4	4,115	188,992
PERSIAN LAMB AND CURACUL	4,224	90,859	4	2,623	66,825
BEAVER, OCELOT, WOLF, SABLE, ETC., DRESSED AND DYED	32,821	525,233	10	19,648	347,034
RABBIT FURSKINS, DR. AND DYED	78,867	218,079	4	43,679	183,438
FURSKINS, NES, DR. AND DYED	2,345,375	2,283,936	18	674,573	655,895
TAIL PIECES, PAWS, DR.	190,139	176,738	12	83,530	42,873
TOTAL FURSKINS, DR. AND DYED	2,662,288	3,615,276		833,374	[illegible]

U.S. WILDLIFE IMPORTS: PRODUCTS (CONT.)

ITEM	1978 QUANTITY	1978 VALUE ($)	NO. OF EXP. COUNTRIES	(Jan - Aug) 1979 QUANTITY	1979 VALUE
EPTILE SKINS, RAW OR CURED	333,066 PC (169,216 LBS)	1,124,279	15	440,898 PC (121,337 LBS)	2,367,976
EPTILIAN LEATHER, NOT FANCY	---	9,824,728	23	---	4,730,145
EPTILIAN LEATHER, ARTICLES	---	133,960	10	---	47,769
HARK SKIN LEATHER	---	524,419	5	---	244,024
EATHER, NOT FANCY, NES	---	7,504,242	31	---	5,831,485
IDES AND SKINS, NOT FURSKINS	---	4,278,157	13	---	3,205,023
OTAL SKINS AND LEATHER	?	23,389,785		?	16,426,422
VORY TUSKS	19,873 LBS	256,316	8	2,918 LBS	79,804
RTICLES OF IVORY	---	7,126,308	24	---	3,848,882
OUNTED OR STUFFED ANIMALS	373,390	301,745	15	297,615	274.064
ORAL, CRUDE	1,667,254 LBS	496,674	16	554,294 LBS	222,145
ARINE SHELLS, CRUDE	9,475,095 LBS	4,033,547	33	6.059,472 LBS	3,097.495
RTICLES OF SHELL	---	6,818,249	31	---	4,607,828
ARINE SPONGES	79,329 LBS	814,769	11	64,949 LBS	762,314
RTICLES OF NATURAL SPONGES	25,682 LBS	84,328	11	10,215 LBS	69,310
STRICH FEATHER AND DOWN	61,761 LBS	1,094,700	2	40,977 LBS	826,989
EATHERS, CRUDE, MEET FED. ST.	138,438 LBS	1,430,356	8	88,848 LBS	140,766
EATHERS, CRUDE, NOT M. F.ST.	7,964,762 LBS	31,008,257	24	5,782,871 LB	14,707,709
OWN, CRUDE, MEET FED. ST.	106,590 LBS	1,642,079	6	22,214 LBS	238,631
OWN, CRUDE, NOT MEET F.ST.	3,497,732 LBS	34,718,621	20	1,403,617 LB	12,120,341
OTAL BIRD FEATHERS	11,769,283 LBS	69,894,013		7,338,527 LB	28,034,436

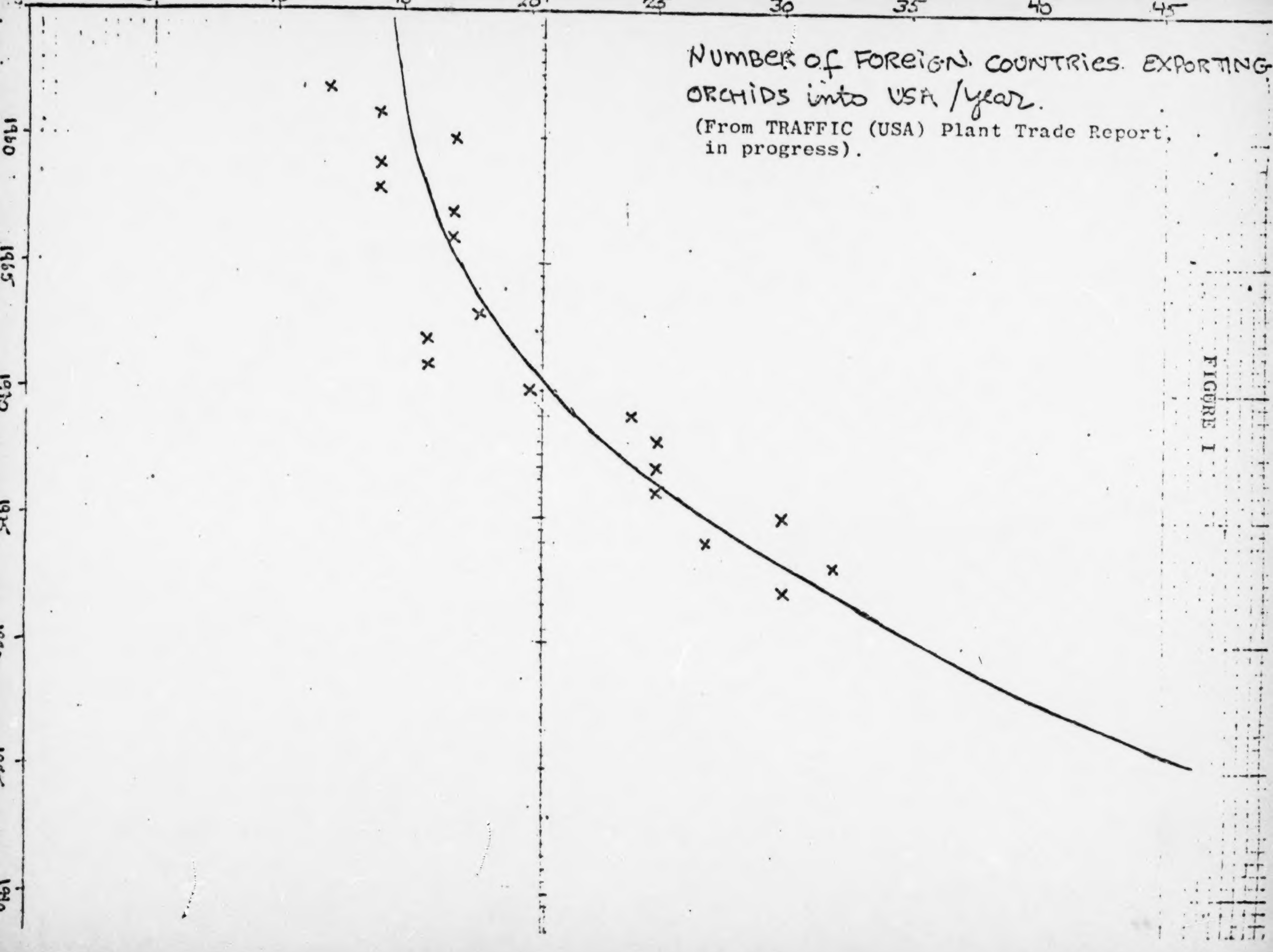
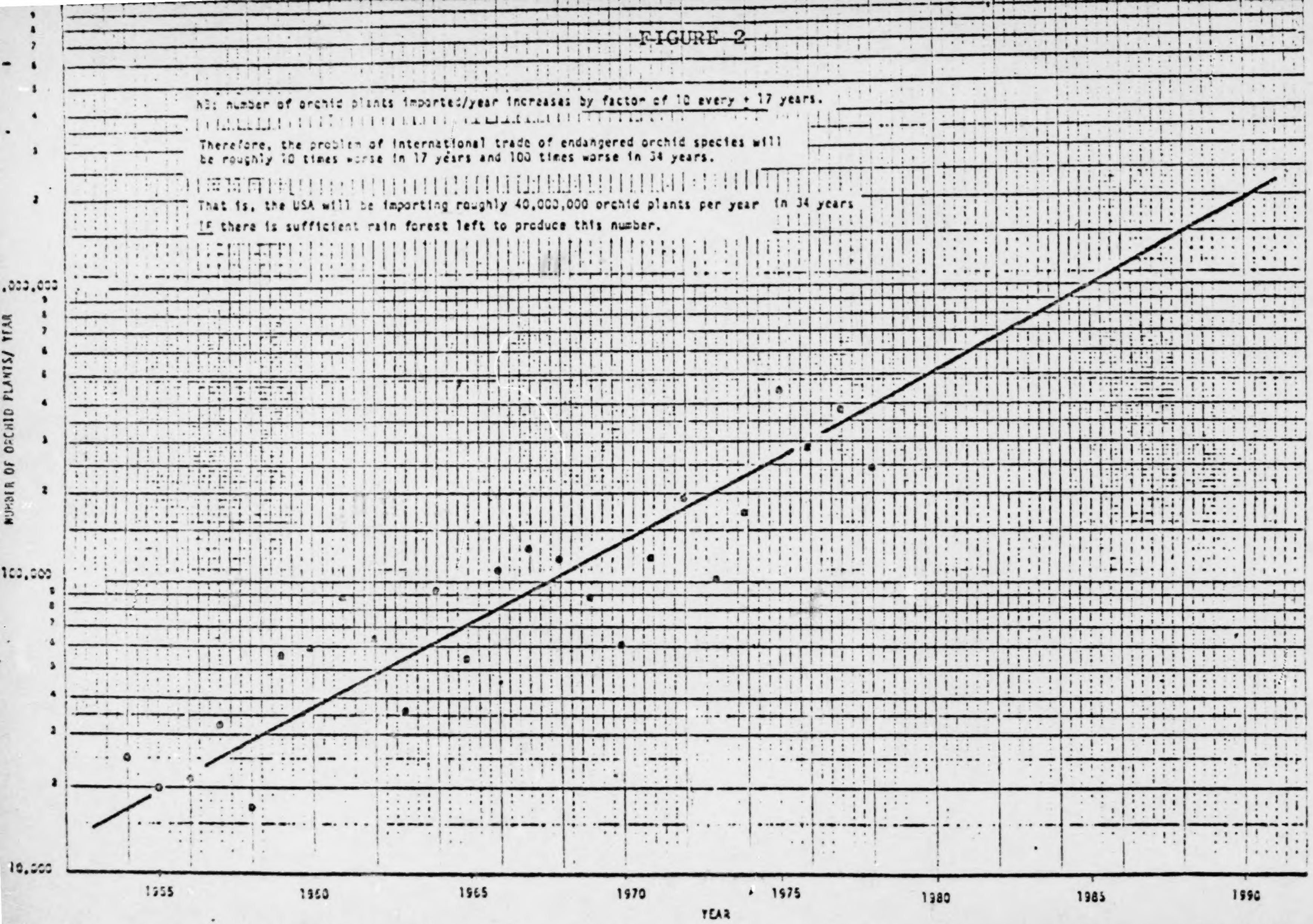


FIGURE I

NUMBER of FOREIGN COUNTRIES EXPORTING ORCHIDS into USA /year.

(From TRAFFIC (USA) Plant Trade Report, in progress).

FIGURE 2



H3: number of orchid plants imported/year increases by factor of 10 every ± 17 years.

Therefore, the problem of international trade of endangered orchid species will be roughly 10 times worse in 17 years and 100 times worse in 34 years.

That is, the USA will be importing roughly 40,000,000 orchid plants per year in 34 years IF there is sufficient rain forest left to produce this number.

Source: TRAFFIC (USA) Plant Trade Report; in progress.

BEST AVAILABLE COPY

BEST AVAILABLE COP

May 22, 1979

Clark Bavin, Esq.
Chief, Division of Law Enforcement
U.S. Fish and Wildlife Service
Department of the Interior
Washington, D. C. 20240

Dear Clark:

As you know, I have for the last several months been examining Fish and Wildlife Service records relating to the importation of African elephant ivory. That examination has revealed several apparently serious deficiencies in the Service's enforcement of the special threatened species regulations that pertain to African elephants, 50 C.F.R. § 17.40(e), as well as the enforcement of regulations governing wildlife importation generally.

Specifically, I have found the following:

1. A substantial number of commercial shipments of ivory have been allowed to enter the United States even though the Forms 3-177 filed with such shipments show that the countries of origin for such products were African countries not parties to CITES. Under the Service's special African elephant regulations, only those products which originated in the wild in a CITES party nation may lawfully be imported. I have examined more than 250 of the Forms 3-177 filed at the ports of New York, Los Angeles, and San Francisco since June 11, 1978, the effective date of the elephant regulations, and of these approximately 64, or 25 percent, show non-parties to CITES as the countries of origin.

I recognize that the Form 3-177 may not, by itself, conclusively establish the legality or illegality of any particular shipment. The information appearing there might, for example, be contradicted by that appearing on the CITES permits that accompany the shipment. Unfortunately, the Service's recordkeeping system is such that it is extremely difficult to match up Convention permits with Forms 3-177 once the former are separated from the latter and forwarded to the Federal Wildlife Permit Office. I personally examined the files at the Permit Office and attempted to locate the Convention permits that corresponded with a sample of the Forms 3-177 in my possession, but was unable to find most of the corresponding permits. Even when I found the corresponding permits, they frequently failed to establish the legality of the shipment. For example, the re-export certificates issued by India simply recite that the specimen was acquired before the Convention applied to it. However, your regulations are clear that compliance with Article VII, paragraph 2, of the Con-

Environmental Defense Fund, 1525 18th Street NW, Washington, DC 20036 (202) 833-1484
OFFICES IN: NEW YORK, NY (NATIONAL HEADQUARTERS); WASHINGTON, DC; BERKELEY, CA; DENVER, CO

vention shall not constitute compliance with § 17.40(e)(2)(B). Hong Kong issued similar re-export certificates, although they have of late begun to stamp the certificates with the name of the CITES country of origin. In no case, however, do official documents from such countries of origin appear.

2. For an even greater number of shipments, the Form 3-177 fails to indicate the product's country of origin, in violation of the Service's general import regulations at 50 C.F.R. § 14.61. In some cases, the appropriate box for indicating country of origin is simply left blank. In other cases, the word "Africa" or some similar designation appears. In still other cases, Hong Kong, India, or other countries which could not possibly be the true countries of origin for African elephant products are indicated as such. Of the forms I have examined, at least 122, or 50 percent, fall into this category. When combined with the forms from the first category, approximately 75 percent of all the Forms 3-177 I have examined either fail to indicate the true country of origin or indicate a country from which importation may not lawfully be had. Copies of several of these forms, plus several of the CITES permits I located are enclosed for your perusal.

The failure of these forms to indicate true countries of origin means that the legality of these shipments under the special elephant regulations cannot be established without resort to the Convention permits. However, as with the forms in the first category, the corresponding Convention permits cannot be readily located in the existing recordkeeping system; many cannot be located at all. Wholly without regard to the special elephant regulations, the failure of the Service to insist upon accurate reporting of countries of origin calls into question the Service's ability adequately to enforce the Lacey Act.

3. An unknown, but apparently substantial number of ivory shipments are being imported via mail, and import declaration forms are apparently not being collected for such importations. This matter came to my attention when the Service responded to my Freedom of Information Act request by producing only four Forms 3-177 for African elephant importations through the port of San Francisco during the past eleven months. That response strains credulity because it is my understanding that San Francisco represents a major (and perhaps the major) market for ivory in the United States. A note accompanying that response provided the following explanation:

> Please note that a high percentage of our African elephant ivory product importations are through the Oakland Mail Facility, Oakland, CA, or come in as personal accompanying baggage at the international airports, in this case S.F. Consequently, very few completed 3-177's are obtained by S.F., P.G.E.

It is unclear from this explanation whether there simply are no 3-177's for these mailed shipments, or whether they exist but were not provided me because they were outside the scope of my request for 3-177's from "the port of San Francisco." If the latter is the case, I would like to request them now; if the former, it would appear that this practice violates your regulations at 50 C.F.R. §§ 14.11 and 14.62.

I hope you will agree that prompt action to correct the above deficiencies is needed, not only to insure technical compliance with legal requirements, but also to facilitate a more effective law enforcement effort. I note in particular that the Service's system for retention of import declaration forms and Convention permits makes it exceedingly difficult for law enforcement interests to use these potentially valuable documents effectively in an after-the-fact audit. In addition, the existing record retention system and the failure to insure full and accurate reporting on such records makes the compilation of reliable trade statistics virtually impossible. Such compilations offer a more than theoretical value. For example, in the pending lawsuit of Cayman Turtle Farm against the Secretary of the Interior (in which EDF has intervened on the side of the Secretary), a significant issue concerns changes in the size of the U.S. market for green sea turtle products during the past six years. Yet, reliable information on that important issue is essentially nonexistent because of the manner in which the Service's records are kept.

EDF views these matters very seriously. Accordingly, to protect our interest in securing a satisfactory resolution, I am this day sending a 60-day notice of intent to sue to the Secretary, as required by Section 11(g) of the Endangered Species Act. I expect, and hope, that we can find a satisfactory resolution without resort to suit. To that end, I would like to meet with you and whomever else you feel appropriate at your earliest convenience to discuss the matters raised in this letter.

Sincerely,

Michael J. Bean

Michael J. Bean
Chairman, Wildlife Program

cc: James Webb, Office of the Solicitor
Kenneth Berlin, Department of Justice

Enclosures

MJB/sc

APPENDIX II

CONCLUSION

All in all, I feel the trip was justified if for nothing else then for the assistance and information provided to our U. S. Embassys, which in actuality are the foreign extensions of the Service when it comes to assisting the traveler and businessman. I found the Embassys almost totally in the dark concerning U. S. Laws in spite of all the materials sent to them at earlier dates. After they were briefed on the problems in the U. S. including the history of species exploitation, most became quite interested and willing to assist in any manner possible. Basically, it took someone to "walk" them through the laws and make them comfortable with them at which time their enthusiam to assist increased markedly.

Excerpt from "Southeast Asia Trip - 1978" by Terry Grosz, Special Agent of Law Enforcement, FWS, pg. 27.

TRAFFIC(U.S.A.)

1601 Connecticut Avenue N.W., Washington, D.C. 20009 Telephone: (202) 797-7901 Cable: PANDAFUND Telex: 64505

RIVER OTTER EXPORT
AND
INTERNATIONAL TRADE

prepared by

TRAFFIC (U.S.A.)

for

THE RIVER OTTER RESEARCH WORKSHOP
March 27 - 29, 1980
held at
the Florida State Museum
Gainesville, Florida

WORLD WILDLIFE FUND-U.S.

TRAFFIC (U.S.A.)—Trade Records Analysis of Flora and Fauna in Commerce—is a scientific information-gathering program monitoring trade in wildlife, plants, and their products. It is funded by World Wildlife Fund-U.S.

SYNOPSIS

During the 1970's, 29 states trapped river otters Lutra canadensis for their pelts. A total of 183,415 otters were harvested in the United States during the last nine years (Table 1). The number taken since the early 1970's appears to have increased: less than 20,000 yearly were reportedly captured prior to the 1976/77 season, while 32,846 were harvested in the 1976/77 season, 27,031 in the 1977/78 season, and 29.665 in the 1978/79 season. This increase may not actually be real since better reporting systems have recently been implemented in several states and many states did not report trapping records prior to 1977.

During the 1978/79 trapping season 29,665 river otter were harvested: Louisiana reported over 9,700 taken, and Alabama, Alaska, Florida, Georgia, and North Carolina each trapped over 1,000 river otters during the same season. Several states have increased the number of river otters reportedly taken: Arkansas reported less than 100 otters/year taken during the early 1970's, while harvesting over 700 during the 1978/79 season; Georgia increased its annual reported take from several hundred in the early 1970's to over 3,000 per year during the 1976/77, 1977/78, and 1978/79 seasons; Louisiana harvested between 4,000 and 8,000 river otters annually between the 1970/71 and 1975/76 trapping seasons, and over the last few years has taken between 7,000 and 12,000 river otters/year.

All Lutra species including Lutra canadensis are currently on Appendix II of the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES), and require an export permit to be transported to another country.

According to U.S. CITES Reports, the United States exported only 3,014 river otter skins in Calendar Year 1977 and 10,871 skins in Calendar Year 1978 (Table 2); 8,586 river otters were exported in Fiscal Year 1978 (October 1977 - September 1978) and 10,663 in Fiscal Year 1979 (Table 3). Most of the pelts were exported to Canada, Switzerland, and West Germany (Table 2). Assuming most pelts are exported in the Calendar Year following trapping (i.e. 1977/78 trapping season pelts were exported in Calendar Year 1978), only 9% of the 1976/77 river otter pelts taken and 40% of the 1977/78 pelts taken were actually exported. These percentages are unrealistic since the demand for river otter pelts in the United States is small and most states claim that most skins are exported to Canada and Europe. This discrepancy most likely stems from the CITES Permit Office (Fish and Wildlife Service, U.S. Department of Interior) not issuing or receiving all the required export permits due to unfamiliarity of the new permit system; it is likely that in 1977 and 1978 otter skins left the United States without a CITES export permit.

Canada also has populations of _Lutra canadensis_. According to otter harvest reports, 116,924 river otters were taken during the 1970/71 to 1976/77 seasons (Table 1). Canada exported over 3,400 river otter skins and 157 finished otter products in 1977 and over 4,800 skins and 189 products in 1978 (Table 4); most of the skins were exported to Italy, Switzerland, the United States, and West Germany. Based on the 1976/77 trapping records and the 1977 CITES reports, Canada exported around 17% of their harvested otters in 1977. It is likely that many more were exported, and like the United States, either CITES permits were not issued or received by the Canadian CITES authorities. Based on trapping records in the United States from 1970 to 1979 and trapping reports in Canada from 1970 to 1976, a minimum of 300,339 river otters were harvested in both countries during the 1970's (Table 1). In the United States, river otter pelt prices rose from an average of $18 in 1970 to $53 in 1976, and in Canada, pelt prices increased from $28 in 1970 to around $70 in 1975 and 1976.

A total of only 10,006 Lutra canadensis skins were imported by all countries in 1977 (re-exports included) and 16,976 skins in 1978 (Table 5). An additional 87 finished products (such as coats and jackets) and 180 finished articles in 1978 were imported. West Germany imported approximately one third of the skins, and large numbers of pelts were imported by Austria, Canada, Italy, Switzerland and the United States.

Many discrepancies exist between what a country claims to export and what the importing country claims to receive from that exporting country. For example, in 1977 the United States reported exports of 434 otter skins to West Germany while West Germany reported imports of 3,506 skins from the U.S. (Table 2). Similarly, the U.S. reported export of 2,187 skins to Switzerland in 1978 while Switzerland recorded imports of only 195 skins from the U.S. (Table 2). Canada reported exports of 1,540 skins to Switzerland in 1977 and a further 1,024 skins in 1978 while Switzerland lists no imports of otter skins from Canada in 1977 and only 76 skins in 1978 (Table 4).

Several other species of river otter are harvested for their pelts and traded worldwide. According to CITES Reports, West Germany imported over 16,000 Lutra skins (unspecified) in 1977 and over 24,000 skins in 1978 (Table 6); of these, 8,349 skins in 1977 and 17,273 skins in 1978 came from Paraguay, and over 4,000 otter skins per year were exported from Peru. Both the United Kingdom and West Germany reported the re-export of Lutra skins in their CITES Reports (Table 7); most of these remain in Europe.

References

Deems, E. F. and D. Pursley (1978). North American Furbearers, Their Management, Research and Harvest Status in 1976. Fur Resources Committee, the International Association of Fish and Wildlife Agencies.

TABLE 1

NUMBER OF RIVER OTTERS HARVESTED IN THE UNITED STATES (BY STATE) AND CANADA

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79
ALABAMA								1500	2145
ALASKA	1500	2000	2570	2540	2074		3355	1981	1991
ARKANSAS	56	38	76	25	37	123	363	419	749
CONNECTICUT		14	7	7	13	14	10	63	74
DELAWARE	30	25	25	25	25	25	50	70	45
FLORIDA						856	2883	3326	2112
GEORGIA	670	222	585	453	624	495	3187	3097	3643
IDAHO	40			1					
LOUISIANA	4808	5440	7668	5989	6118	5730	11900	6597	9745
MAINE	588	637	593	871	1007	898	531	675	693
MARYLAND	131	360	218	208	141	130	182	187	262
MASSACHUSETTS	76	53	71	66	66	103	108	163	121
MICHIGAN	633	832	1152	459	609	914	910	660	730
MINNESOTA		784	1079	185	315	2664		492	707
MISSISSIPPI							1314	2260	952
MONTANA	32	24	34	48	42	28	48	40	34
NEVADA	5	18	23	54	8	8	45		
NEW HAMPSHIRE	135	157	208	186	170	181	205	236	206
NEW YORK	171	329	413	405	496	533	636	467	677
NORTH CAROLINA		1606	1407	968	893	878	1390	927	1357
OREGON	198	265	331	298	339	276	439	300	348
RHODE ISLAND	4	1					34	15	25
SOUTH CAROLINA				526	699	783	1351	560	476
TENNESSEE							2		
TEXAS					3	62	63		
VERMONT			11	27	28	27	27	42	76
VIRGINIA	890	648	642	602	612	594	1255	1141	813
WASHINGTON	359	597	557	635	691	661	1287	760	722
WISCONSIN	483	960	1199	1492	1269	853	1271	1053	962
TOTAL	10,809	15,010	18,869	16,070	16,279	16,836	32,846	27,031	29,665
AVG. PELT PRICE	$18	$25	$35	$32	$31	$50	$53		
TOTAL CANADA HARVEST	14,848	14,958	18,466	17,749	14,942	16,029	19,932		
AV. PELT PRICE	$28	$33.50	$47	$43	$43.50	$72	$69.04		

Source: 1970/71 - 1976/77 Trapping Season Data from North American Furbearers (Deems and Pursley, 1978); 1977/78 and 1978/79 data from ESSA Reports in Federal Registers.

TABLE 2

U.S. EXPORT OF RIVER OTTER (LUTRA CANADENSIS)

SKINS AND FINISHED PRODUCTS

	1977		1978	
COUNTRY	SKIN	FINISHED PRODUCT	SKIN	FINISHED PRODUCT
ARGENTINA			42	
AUSTRIA	584		651	
* CANADA	452	1	3,908	
* DENMARK			283	
* ITALY	97		156	
* SWITZERLAND	279 (108)	1 (1)	2,187^{+}(195)	
* UNITED KINGDOM	49 (153)			
* WEST GERMANY	434 (3,506)		3,644 (3,904)	
UNSPECIFIED	1,119			
TOTAL	3,014	2	10,871	0

* CITES Party Country

$^{+}$ 195 of these originated in Canada

Source: 1977/1978 U.S. CITES Reports. The number in parenthesis is the import figure listed in the importing country's CITES Report.

TABLE 3

U.S. RIVER OTTER (*LUTRA CANADENSIS*) EXPORT BY STATE
(FISCAL YEAR: OCTOBER THROUGH SEPTEMBER)

STATE	FY 1978	FY 1979
ALABAMA	164	528
ALASKA	1225	315
ARKANSAS	-	50
* COLORADO	-	1
CONNECTICUT	13	42
DELAWARE	0	16
FLORIDA	325	904
GEORGIA	794	1538
* IDAHO	1	-
LOUISIANA	1776	1801
MAINE	622	549
MARYLAND	4	170
MASSACHUSETTS	58	98
MICHIGAN	4	121
MINNESOTA	137	296
MISSISSIPPI	76	115
* MISSOURI	-	1
MONTANA	22	10
NEW HAMPSHIRE	26	113
NEW YORK	27	259
NORTH CAROLINA	775	741
OREGON	222	283
RHODE ISLAND	7	21
SOUTH CAROLINA	357	178
* TENNESSEE	-	15
* UTAH	-	3
VERMONT	81	36
VIRGINIA	452	609
WASHINGTON	438	382
WISCONSIN	708	376
UNKNOWN	269	1092
TOTAL	8,583	10,663

* These states all have closed seasons. The figures presented may actually be errors made in identifying state abbreviations on tags or in tallying.

Source: Wildlife Permit Office, FWS, USDI

TABLE 4

CANADA EXPORT OF RIVER OTTER (LUTRA CANADENSIS)

SKINS AND FINISHED PRODUCTS

	1977		1978	
COUNTRY	SKIN	FINISHED PRODUCT	SKIN	FINISHED PRODUCT
AUSTRIA			245	1
BELGIUM			12	1
* FINLAND	21			
* FRANCE	42			4
HONG KONG			8	
IRELAND				1
* ITALY	943	5	585	
JAPAN	37	3		21
NETHERLANDS				1
* NORWAY	1	2		
SAUDI ARABIA		1		
SPAIN		3		
* SWEDEN		2		4
* SWITZERLAND	1,540 (0)	79 (58)	1,024 (76)	45 (40)

TABLE 4

CANADA EXPORT OF RIVER OTTER (LUTRA CANADENSIS) SKINS AND FINISHED PRODUCTS
(cont.)

COUNTRY	1977 SKIN	1977 FINISHED PRODUCT	1978 SKIN	1978 FINISHED PRODUCT
* UNITED KINGDOM	49 (48)	6 (0)	24 (0)	6 (0)
* UNITED STATES	705 (2,256) 86 KG	43 (1)	910 (1,924) 18 KG	63 (14)
* WEST GERMANY	94 (94)	13 (0)	2,066 (2,163)	42 (0)
TOTAL	3,432 + 86 KG	157	4,874 + 18 KG	189

* CITES Party Country

Source: 1977/1978 Canada CITES Report. The number in parenthesis is the import figure listed in the importing country's CITES Report.

IMPORT OF RIVER OTTER (LUTRA CANADENSIS)
SKINS AND FINISHED PRODUCTS

	1977		1978			
COUNTRY	SKIN	FINISHED PRODUCT	SKIN	FINISHED PRODUCT	EXPORTING COUNTRY	COUNTRY OF ORIGIN
ARGENTINA			(42)		USA	USA
AUSTRIA	(584)		(651)		USA	USA
			(245)	(1)	CANADA	-
	(471)				UK	-
BELGIUM			(12)	(1)	CANADA	CANADA
* CANADA	(452)	(1)	(3,908)		USA	USA
	(13)				UK	-
* DENMARK			226 (283)		USA	USA
* FINLAND	(21)				CANADA	-
			(22)		USA	-
* FRANCE	(42)			(4)	CANADA	CANADA
HONG KONG			(8)		CANADA	CANADA
IRELAND				(1)	CANADA	CANADA
* ITALY			(10)		UK	USA
	(48)		(62)		UK	CANADA
	(97)		(156)		USA	USA
	(943)	(5)	(585)		CANADA	CANADA
			(278)		FRG	FRG
JAPAN	(37)	(3)		(21)	CANADA	CANADA
NETHERLANDS				(1)	CANADA	CANADA
* NORWAY	(1)	(2)			CANADA	CANADA

IMPORT OF RIVER OTTER (LUTRA CANADENSIS)

SKINS AND FINISHED PRODUCTS
(cont.)

COUNTRY	1977 SKIN	1977 FINISHED PRODUCT	1978 SKIN	1978 FINISHED PRODUCT	EXPORTING COUNTRY	COUNTRY OF ORIGIN
SAUDI ARABIA		(1)			CANADA	CANADA
SPAIN			(42)		UK	USA
		(3)			CANADA	CANADA
* SWEDEN		(2)		(4)	CANADA	CANADA
* SWITZERLAND			195		USA	CANADA
	108 (279)	1 (1)	(1,992)		USA	USA
			12 (13)	4	FRG	USA
			(2)	(1)	FRG	CANADA
	(1,540)	58 (79)	76 (1,024)	38 (45)	CANADA	-
			82		ITALY	
			8		UK	
* UNITED KINGDOM#	153 (49)				USA	-
	48 (49)	(6)	(24)	(6)	CANADA	-
			1		NORWAY	CANADA
* UNITED STATES		4 (4)	1	(1)	DENMARK	-
	2,256 (705)	1 (43)	1,924 (910)	14 (63)	CANADA	CANADA
	86 KG		18 KG		CANADA	CANADA
			177 (177)		FRG	CANADA
* WEST GERMANY	42 (128)			(40)	UK	-
	94 (94)		2,163 (2,066)	(42)	CANADA	-
	3,056 (434)		3,094 (3,644)		USA	-
				(1)	SWITZERLAND	-
			(168)		DENMARK	USA
TOTALS:	10,006 + 86 KG	87	16,976 + 18 KG	180		

* CITES Party Country

# UK Import Figures for 1978 are partial.

( ) The number in parenthesis is the export figure listed in the exporting country's CITES Report.

Source: 1977 and 1978 CITES Reports by Canada, Denmark, Switzerland, the United Kingdom, the United States and West Germany.

TABLE 6

IMPORT OF RIVER OTTER (*LUTRA* SPECIES)
SKINS AND FINISHED PRODUCTS

Importing Country	Species	Quantity		Country of Origin or Re-export
		1977	1978	
FINLAND	*Lutra lutra*		9	USSR
SWITZERLAND	*Lutra* spp. (unspecified)		40	West Germany
		4		Turkey
		1		United Kingdom
	Lutra lutra	116		West Germany*
	L. perspicillata	3 products		West Germany
UNITED KINGDOM	*Lutra lutra*	20 (re-import)		Belgium
UNITED STATES	*Lutra* spp. (unspecified)	12		Argentina
WEST GERMANY	*Lutra* spp. (unspecified)	2,337		United Kingdom
		4,411	4,006	Peru
		39	54	Belize
		101	389	Panama
		8,349	17,273	Paraguay
		73	1	Argentina
		268		India
		681		Austria
			1,374	Bolivia
			162	Mexico
			272	Italy
			690	Iraq
			10 products	Argentina
			467 products	Greenland

---

* These skins reportedly originated in Paraguay, a country where *L. lutra* does not exist.

Source: 1977 and 1978 CITES Reports from Finland, the United Kingdom, the United States, West Germany and Switzerland.

TABLE 7

RE-EXPORT OF RIVER OTTER (LUTRA SPECIES)
SKINS AND FINISHED PRODUCTS

Re-Export Country	Species	Quantity 1977	Quantity 1978	Destination Country	Country of Origin or Export
ITED KINGDOM*	*Lutra lutra*	544		Italy	-
		960	20	West Germany	-
			2	Switzerland	-
			6	Belgium	-
	Lutra longicaudis	40		Austria	-
		30		Belgium	-
		1,637		West Germany	-
	L. perspicillata		1,744	West Germany	-
EST GERMANY	*Lutra* spp. (unspecified)	116	28	Switzerland	Paraguay
		30	250	Austria	Paraguay
		730		Belgium	Paraguay
		38		Greenland	Paraguay
		20		United States	Belgium
		12		Austria	Bolivia
		12		United States	West Germany
		211		United States	Italy
		31		Switzerland	Peru

All re-exported skins were imported into the U.K. prior to 3 February, 1977.

urce: 1977/78 CITES Report for the United Kingdom and West Germany.

TRAFFIC(U.S.A.)

1601 Connecticut Avenue N.W., Washington, D.C. 20009 Telephone: (202) 797-7901 Cable: PANDAFUND Telex: 64505

NEOTROPICAL PSITTACINES IN TRADE

prepared by

TRAFFIC(U.S.A.)

April 8, 1980

WORLD WILDLIFE FUND-U.S.

TRAFFIC (U.S.A.)—Trade Records Analysis of Flora and Fauna in Commerce—is a scientific information-gathering program monitoring trade in wildlife, plants, and their products. It is funded by World Wildlife Fund-U.S.

NEOTROPICAL PSITTACINES IN TRADE

During the course of the macaw trade study (Nilsson & Mack, 1980), TRAFFIC(U.S.A.) analyzed 3-177 Declaration of Import documents for macaws from the following ports of entry: Miami, New Orleans, Los Angeles, San Francisco, and New York.[1] These import forms also listed other species of Neotropical psittacines contained in the same shipments which are analyzed in this brief report.

It must first be pointed out that data from the other three designated ports of entry (Chicago, Seattle, Honolulu) and the number of parrots entering the U.S. along the Mexican border are not included in these tables. In addition, both Law Enforcement (FWS) and Customs Agents estimate that only 1/2 to 2/3 of all bird shipments from South and Central America contain macaws. Therefore, the actual number of psittacines entering the United States may be twice as large as we estimate in this study. For example, an analysis of import documents would seem to indicate that Argentina exported several hundred psittacines to the U.S. in 1978, whereas U.S. Customs statistics report that the U.S. imported over 27,000 psittacines from Argentina during that same year. Further, thousands of parrots are smuggled into the U.S. from Mexico; the U.S. Department of Justice estimates between 25,000 and 50,000 psittacines are smuggled across this border every year (Wildlife Newsletter, March 1980). Our results, therefore, present only a partial and very conservative picture of the South and Central American bird trade.

---

[1] Courtesy of the Law Enforcement Division, Fish and Wildlife Service, U.S. Department of Interior.

Between 1970 and 1972 over 70% of all birds imported into the United States from South and Central America were psittacines. In 1970, 118,774 Neotropical psittacines were imported into the United States (Table 1); the figure rose to 218,630 in 1971, but fell to 50,356 in 1972 as a result of an import ban on all cage birds in March 1972. This import ban was the result of a massive outbreak of velogenic viscerotropica Newcastle Disease (VVND) in domestic poultry in California and New Mexico, caused by the import of diseased psittacines.

At the end of 1973 the current U.S. Department of Agriculture quarantine station system went into effect (see Nilsson & Mack, 1980, for discussion), and exotic birds were again imported into the United States. In 1976, 48,940 birds were imported from South and Central America (Table 1); imports rose to 113,649 in 1977 and 164,694 in 1978, before dropping to 136,111 in 1979. Most of these birds are probably psittacines, since, in the early 1970's, a high percentage (between 70 and 90 percent) of all imported birds were psittacines.

In the early 1970's Peru, Colombia, Mexico and Paraguay accounted for almost all of the U.S. imports of New World psittacines (Table 1). Today, it appears that Paraguay, Bolivia, Guyana, Mexico, Suriname, and Trinidad are the largest exporters of Neotropical psittacines based on data of shipments containing macaws (Table 2). U.S. Customs figures show that Peru, Uruguay, Argentina, Panama, Guatemala, Honduras and Brazil also exported large numbers of birds to the United States over the last few years (Table 1).

Conures and amazons were the most frequently imported psittacines: in 1977 a minimum of 10,000 conures and 13,500 amazons entered the United States; in 1978 over 20,000 conures and 12,500 amazons were imported (Table 2). It must be underlined that our import figures represent only 1/2 to 2/3 of all Neotropical bird shipments for five ports of entry, and actual numbers imported for these two years could be more than twice as many. Over 5000 macaws per year were imported between 1977 and 1979. In addition, an average of 2900 parakeets, 1200 parrotlets, 900 parrots, and 640 caiques were imported in both 1977 and 1978 (Table 2).

Several other countries import Neotropical psittacines: Switzerland reports an increase in the number imported - in 1976, 689 were imported; in 1977, 751 were imported, and in 1978, 1001 were imported (Table 3).--Japan, the United Kingdom, West Germany, Italy, and Sweden also appear to import Neotropical psittacines, but actual import figures are not available.

In 1979 over 10,000 psittacines were exported from Peru (Table 4); over 98% were exported to the United States. Most of the birds were either Aratinga or Brotogeris species. U.S. Customs statistics for 1979 report that the U.S. imported over 20,000 birds from Peru (Table 1) - though all these birds may not have been psittacines.

Many of the South and Central American psittacines are abundant throughout much of the Neotropics (Table 5), and several species are considered agricultural pests. Unfortunately some of these birds are being removed from National Parks and Preserves where they are legally protected. Other birds have been removed from a country that prohibits the trapping and/or export of their bird populations. The result is that a large number of parrots are being exported from countries which do not have endemic populations of these birds - e.g., Bolivia and Paraguay (Table 6). Other explanations for the above discrepancies are: 1) an accidental or deliberate clerical error listing the wrong species on the import document, or 2) the possibility that these birds were shipped to other countries for re-export.

Currently only 15 species of New World psittacines are listed on Appendix I and 1 species is on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (Table 7). Several other species are listed in the I.U.C.N. Red Data Book as either endangered, rare, vulnerable or indeterminate (Table 7).

Over 50% of all Neotropical psittacine species are traded. The figures reported in this paper are only a portion of the total number of Neotropical psittacines imported into the United States, but they serve as a general indication of the species involved in the trade.

Acknowledgement

A special thanks to Dr. Robert Ridgely who provided us with details on present day distribution of Neotropical psittacines.

REFERENCES

Clapp, R.B. and R.C. Banks (1973), Birds Imported into the United States in 1970, Special Scientific Report - Wildlife No. 164, Fish and Wildlife Service, U.S.D.I., Washington, D.C.

Clapp, R.B. and R.C. Banks (1973), Birds Imported into the United States in 1971, Special Scientific Report - Wildlife No. 170, FWS, USDI, Washington, D.C.

Clapp, R.B. (1975), Birds Imported into the United States in 1972, Special Scientific Report - Wildlife No. 193, FWS, USDI, Washington, D.C.

Clements, J.F. (1978), Birds of the World: A Check List, The Two Continents Publishing Group, Ltd., New York, 532 pp.

Forshaw, J.M. (1973), Parrots of the World, Doubleday & Co., Inc., Garden City, New York, 584 pp.

Nilsson, Greta and David Mack (1980), Macaws: Traded to Extinction?, TRAFFIC(U.S.A.) Special Report No. 2.

Wildlife Newsletter, (March, 1980), Land and Natural Resources Division Journal, U.S. Department of Justice, Vol.1, No. 1.

NEOTROPICAL BIRDS IMPORTED INTO THE UNITED STATES BY COUNTRY

COUNTRY	1970+		1971+		1972+		///	1976	1977	1978	1979
ARGENTINA	1,079	(0)	3,275	(0)	3,382	(0)		6,749	22,575	27,385	15,160
BOLIVIA	134	(0)	134	(0)	213	(0)	///	5,491	7,353	14,136	24,251
BRAZIL	857	(15)	360	(33)	89	(0)					5,883
CHILE					1	(0)			848		
COLOMBIA	20,832	(12,697)	36,327	(26,292)	21,861	(10,777)	///				
DOMINICAN REPUBLIC								10		725	20
ECUADOR	2,268	(0)	4,475	(81)	1,740	(0)				42	602
EL SALVADOR							///		511		
FRENCH WEST INDIES										232	
GRENADA									3		
GUATEMALA	1,051	(1,031)	4,954	(4,952)	1,471	(1,471)	///		498	2,813	2,178
GUYANA	276	(0)	80	(0)	102	(2)		5,074	12,282	6,512	9,508
HAITI	199	(0)	73	(0)	297	(0)		22			
HONDURAS	156	(0)	196	(0)	169	(0)	///		886	3,190	2,582
JAMAICA										222	756
MEXICO	32,680	(31,384)	19,245	(19,064)	10,779	(9,638)	///	20,060	30,687	52,764	24,176
NICARAGUA	505	(0)	1,064	(566)	928	(742)		5,159	621		675
PANAMA	44	(26)	201	(74)	7	(1)		318	871	1,354	1,401
PARAGUAY	32,521	(28,000)	44,990	(43,989)	7,423	(6,203)	///		16,278	31,715	3,462
PERU	47,356	(45,621)	125,817	(123,579)	22,220	(21,522)		2,749	1,936	5,648	20,514
SURINAME								1,488	4,875	3,062	1,539
TRINIDAD							///		3,060	2,863	704
URUGUAY			34	(0)	317	(0)		1,820	10,341	12,031	22,700
VENEZUELA							///		24		
TOTAL BIRDS (Imported from Neotropics)	139,958	(118,774)	241,225	(218,630)	70,999	(50,356)		48,940(34,258)*	113,649(79,554)*	164,694(115,289)*	136,111(95,278)*
TOTAL BIRDS (Imported from New & Old World)	932,906		966,651		640,995			268,202	448,517	630,521	475,645

* From 1970-1972, the percentage of Psittacines imported versus total birds imported from these countries was 84.8% in 1970, 90.6% in 1971, and 70.9% in 1972; thus we are assuming that a minimum of 70% of all birds imported from 1976-1979 were Psittacines.

Source: From 1970-1972: Clapp & Banks, 1971 and 1972; Clapp, 1975. From 1976-1979: U.S.Imports (IM-146),Census Bureau, Dept. of Commerce.

+ The first number represents the total number of birds imported; the number in parenthesis represents the number of psittacines imported. The actual number of psittacines imported from 1976 - 1979 is not known.

BEST AVAILABLE COPY

TABLE 2

NEOTROPICAL PSITTACINES IMPORTED INTO THE UNITED STATES

MACAWS		ARGENTINA	BOLIVIA	EL SALVADOR	GUATEMALA	GUYANA	HONDURAS	MEXICO	NICARAGUA	PANAMA	PARAGUAY	SURINAME	TRINIDAD	WEST INDIES	BELGIUM	INDONESIA	ITALY	JAPAN	SOUTH AFRICA	SWEDEN	UNITED KINGDOM	WEST GERMANY	COUNTRY UNKNOWN*	TOTAL
Anodorhynchus hyacinthinus	1977		7								99											2	10	118
(Hyacinth)	1978		94								372					8							8	482
	+ 1979		35								37													72
Ara ararauna	1977		396			886				32	4		116										298	1732
(Blue and yellow)	1978		106		6	56	13	2		60	183		339		16				6	10			195	1173
	+ 1979		451	4	137	122				44	72					28	152	1			26		108	964
Ara caninde	1977		1																					1
(Caninde)	+ 1979		2																					2
Ara militaris	1977		1																					1
(Military)	1978		4					50	1								1						8	64
	+ 1979		2	10	11			2		22													10	57
Ara ambigua																								
(Great Green)	1978									15							12							27
Ara macao	1977		31			94	2		1	6														134
(Scarlet)	1978		10		34	4			2	60			50		6		101			36			68	371
	+ 1979			59	49		1			25		2	47							32			37	252
Ara chloroptera	1977		112			127				4	31												79	353
(Green-winged)	1978		22		7	19				30	201				4	5	25		4	6			76	399
	+ 1979		13	9	28	30				23	200										4		30	337
Ara rubrogenys	1977		16																					16
(Red-fronted)	1978		82																					82
	+ 1979		125																					125
Ara severa	1977		430			76						2								50			16	574
(Severe)	1978		1530							70						90							56	1746
	+ 1979		1170																				405	1575

BEST AVAILABLE COPY

TABLE 2
(cont.)

MACAWS (cont.)		ARGENTINA	BOLIVIA	EL SALVADOR	GUATEMALA	GUYANA	HONDURAS	MEXICO	NICARAGUA	PANAMA	PARAGUAY	SURINAME	TRINIDAD	WEST INDIES	BELGIUM	INDONESIA	ITALY	JAPAN	SOUTH AFRICA	SWEDEN	UNITED KINGDOM	WEST GERMANY	COUNTRY UNKNOWN*	TOTAL
Ara auricollis	1977		185								19												29	233
(Yellow-collared)	1978		1482								32					94							58	1666
	+1979		1184																				348	1532
Ara manilata	1977					124					73												50	247
(Red-bellied)	1978																			12				12
	+1979																						47	47
Ara maracana	1977										113													113
(Illiger's)	1978	1									33												7	41
Ara nobilis	1977		3			198						38											50	289
(Red-shouldered)	1978					141						14											128	283
	+1979		133			55																	115	303
Ara spp.	1977								42		4		3	2									34	85
	1978													2										2
	+1979									410														410
TOTALS:	1977		1182			1505	2		43	42	343	40	119	2						30		2	566	3896
	1978	1	3330		47	220	13	52	3	235	821	14	389	2	26	225	291	1	10	64			604	6348
	+1979		3115	82	225	207	1	2		524	309	2	47							32	30		1100	5676

[1] Data from Nilsson and Mack (1980)

* Most of this is supplemental data found in reports received from Miami Quarantine stations. These reports do not list country of origin.

+ January-August only.

Source: 3-177 Declaration of Import documents/ Courtesy of Law Enforcement Division, FWS, USDI.

BEST AVAILABLE COPY

TABLE 2
(cont.)

CONURES		ARGENTINA	BOLIVIA	CHILE	GUYANA	HONDURAS	MEXICO	NICARAGUA	PARAGUAY	SURINAME	TRINIDAD	INDONESIA	SWEDEN	COUNTRY UNKN	TOTAL
Aratinga acuticaudata	1977		211						37						248
(Blue-crowned)	1978		788						195			10			993
	+1979		423											43	466
A. aurea	1977								1369					552	1921
(Peach-fronted)	1978				5				2522				20	654	3201
	+1979		278												278
A. auricapilla	1977								67					20	87
(Golden-capped)	1978								175				20	118	313
	+1979								150						150
A. canicularis	1977					22									22
(Orange-fronted)	1978						70								70
	+1979		225											5	230
A. cactorum	1977								37						37
(Cactus)	1978								17		60				77
A. erythrogenys	1978												16		16
(Red-masked)	+1979													17	17
A. euops	+1979		43												43
(Cuban)															
A. holochlora	1977					26			158						184
(Green)	1978		18						426						444
A. jandaya	1977								80					60	140
(Jandaya)	1978								464						464
A. leucophthalmus	1977		234						79	9				75	397
(White-eyed)	1978		1220		25				121					72	1438

(cont.)

CONURES		ARGENTINA	BOLIVIA	CHILE	GUYANA	HONDURAS	MEXICO	NICARAGUA	PARAGUAY	SURINAME	TRINIDAD	INDONESIA	SWEDEN	COUNTRY UNKN	TOTAL
Aratinga mitrata	1977		1300						15					31	1346
(Mitred)	1978		3200									70		2	3272
	+ 1979		625											755	1380
A. nana															
(Olive-throated or Aztec)	1977					6									6
	1978		4												4
A. pertinax	1977				1022					459				205	1686
(Brown-throated)	1978				844					150				182	1176
	+ 1979				280									97	377
A. solstitialis	1977				31										31
(Sun)	1978													5	5
	+ 1979				52									4	56
A. wagleri	1977								163						163
(Scarlet-fronted)	1978								29						29
	+ 1979		36												56
A. weddellii	1977		5												5
(Dusky-headed)	+ 1979		200											468	668
Cyanoliseus patagonus	1977								228					22	250
(Patagonian)	1978	452							20						472
Enicognathus ferrugineus	1977			10											10
(Austral)															
E. leptorhynchus	1977			140											140
(Slender-billed)															
Nandayus nenday	1977				303				1389					619	2311

TABLE 2
(cont.)

CONURES		ARGENTINA	BOLIVIA	CHILE	GUYANA	HONDURAS	MEXICO	NICARAGUA	PARAGUAY	SURINAME	TRINIDAD	INDONESIA	SWEDEN	COUNTRY UNKNOWN*	TOTAL
Pyrrhura calliptera (Flame-winged or Brown-breasted)	+1979		25												25
P. frontalis (Maroon-bellied)	1977								278						278
	1978								288					182	470
P. Molinae (Green-cheeked)	+1979		81											19	100
P. Devillei (Black-winged)	1978								1865						1865
P. picta (Painted)	1977				175			400		29					604
	1978		3											3	6
P. rhodocephala (Rose-crowned)	1978								105						105
Unknown Conures	1977								192	500	200			193	1085
	1978		14						1645						1659
TOTALS:	1977		1750	150	1531	54		400	4092	997	200			1777	10951
	1978	452	5185		874		70		11893	150	60	80	56	1492	20412
	+1979		2636		332				150					1413	4531

+ January-August only.

* Most of this is supplemental data found in reports received from Miami Quarantine Stations. These reports do not list country of origin.

Source: 3-177 Declaration of Import documents/ Courtesy of Law Enforcement Division, FWS, USDI

TABLE 2
(cont.)

ARAKEETS		BOLIVIA	PANAMA	PARAGUAY	SURINAME	TRINIDAD	COUNTRY UNKNOWN*	TOTAL
olborhynchus aymara	1978	28						28
Sierra)								
rotcgeris chrysopteris	1977			338	29	200		567
Golden-winged)	1978			100			106	206
rotogeris jugularis	1977			10				10
Orange-chinned)	1978	8	300	36				344
rotogeris sanctithomae	1978	5						5
Tui)								
rotogeris versicoloris	1977			209	57		200	466
Canary-winged)	1978	691		1388			8	2087
	+ 1979	250		75				325
yiopsitta monachus	1977			727		200		927
Monk)	1978			174				174
iscellaneous Parakeets	1977				500	200		700
	1978	2		308				310
TALS:	1977			1284	586	600	200	2670
	1978	734	300	2006			114	3154
	+ 1979	250		75				325

Most of this is supplemental data found in reports received from Miami Quarantine Stations. These reports do not list country of origin.

January-August only.

Source: 3-177 Declaration of Import documents/Courtesy of Law Enforcement Division, Fish & Wildlife Service, USDI.

TABLE 2
(cont.)

PARROTLETS		BOLIVIA	GUYANA	SURINAME	TRINIDAD	INDONESIA	SWEDEN	COUNTRY UNKNOWN*	TOTA
Forpus passerinus	1977			689					689
(Green-rumped)	1978			100	525		50	1039	1714
	+ 1979		9					24	33
Forpus sclateri	1977		10						10
(Sclater's)									
Forpus xanthopterygius	+ 1979	50						130	180
(Blue-winged)									
TOTALS:	1977		10	689					699
	1978			100	525		50	1039	1714
	+ 1979	50	9					154	213
CAIQUES									
Pionites leucogaster	1978	120	20			18			158
(White-bellied)									
Pionites melanocephala	1977		424	115				30	569
(Black-headed)	1978		126	30			50	111	317
	+ 1979		50						50
Miscellaneous Caiques	1977							242	242
TOTALS:	1977		424	115				272	811
	1978		146	30		18	50	111	475
	+ 1979		50						50

* Most of this is supplemental data found in reports received from Miami Quarantine Stations. These reports do not list country of origin.

+ January-August only.

PARROTS		BOLIVIA	GUATEMALA	GUYANA	PANAMA	PARAGUAY	SURINAME	TRINIDAD	INDONESIA	SOUTH AFRICA	SWEDEN	COUNTRY UNKNO	TOTAL
Deropterus accipitrinus	1977					3	10						13
(Hawk-headed)	1978					4	3					1	8
	+1979											1	
Hapalopsittaca melanotis	1978			5									5
(Black-winged)	+1979	14											14
Pionus fuscus	1977			2			11						13
(Dusky)	1978			30									30
	+1979											100	100
Pionus maximiliani	1977	40				378						107	525
(Scaly-headed)	1978	44				400			2			16	462
	+1979	192											192
Pionus menstruus	1977	4					120						124
(Blue-headed)	1978	119		7				320	1	6	52	100	605
	+1979	31		63	6							152	252
Pionus senilus	1978		2										2
(White-capped)	+1979											20	20
Pionus sordidus	+1979	1											1
(Red-billed)													
Pionus tumultuosus	1977	6											6
(Plum-crowned)	+1979	43											43
Triclaria malachitacea	1978	4											4
(Purple-bellied)													
TOTALS:	1977	50		2		381	141					107	681
	1978	167	2	42		404	3	320	3	6	52	117	1116
	+1979	281		63	6							273	623

+ January-August onl/.

* Most of this is supplemental data found in reports received from Miami Quarantine Stations.
Source: 3-177 Declaration of Import documents/ Courtesy of Law Enforcement Division, FWS, USDI.

(cont.)

AMAZONS		BOLIVIA	EL SALVADOR	GUATEMALA	GUYANA	HONDURAS	MEXICO	NICARAGUA	PANAMA	PARAGUAY	SURINAME	TRINIDAD	SOUTH AFRICA	SWEDEN	WEST GERMANY	COUNTRY UNKNOWN*	TOTAL
Amazona aestiva	1977	998			390					1816		32				70	3306
(Blue-fronted)	1978	364	3	2	25					1824						768	2986
	+ 1979	766	3		107					675						902	2453
Amazona albifrons	1977					68											68
(White-fronted)	1978			43			250										293
	+ 1979															76	76
Amazona amazonica	1977				2982						64	320				459	3825
(Orange-winged)	1978	1			1058				181			10	28	100		1294	1782
	+ 1979				794				16							367	1177
Amazona autumnalis	1977					13											13
(Red-lored)	1978		2	39					90					25		132	288
	+ 1979		216													405	621
Amazona dufresniana	1978				15												15
(Blue-cheeked)																	
Amazona farinosa	1977	3			675											162	840
(Mealy)	1978	3			682				20							340	1045
	+ 1979	1			504											200	705
Amazona finschi	1978						225										225
(Lilac-crowned)																	
Amazona ochrocephala	1977	980			1000	2		1		2		1280			24	488	2777
(Yellow-crowned)	1978		30	264	61	300	300		70	40		1205		140		2155	4565
	+ 1979	225	159	60	147				288							468	1347
Amazona pretrei	1977				466				250			260					976
(Red-spectacled)																	

TABLE 2
(cont.)

AMAZONS (cont.)		BOLIVIA	EL SALVADOR	GUATEMALA	GUYANA	HONDURAS	MEXICO	NICARAGUA	PANAMA	PARAGUAY	SURINAME	TRINIDAD	SOUTH AFRICA	SWEDEN	WEST GERMANY	COUNTRY UNKNOWN*	TOTAL
Amazona tucamana (Alder or Tucaman)	1978	2															2
Amazona viridigenalis (Green-cheeked)	1978						525										525
Amazona xanthops (Yellow-faced)	1978									18							18
Amazona spp.	1977									700							700
TOTALS:	1977	1981			5513	83		1		2768	64	1892			24	1179	13505
	1978	370	35	348	1841	300	1300		361	1882		1215	28	265		4689	12634
	+ 1979	992	378	60	1552				304	675						2418	6379

* Most of this is supplemental data found in reports received from Miami Quarantine Stations. These forms do not list country of origin.

+ January-August only.

Source: 3-177 Declaration of Import documents/ Courtesy of Law Enforcement Division, FWS, USDI

TABLE 2
(cont.)

		ARGENTINA	BOLIVIA	CHILE	EL SALVADOR	GUATEMALA	GUYANA	HONDURAS	MEXICO	NICARAGUA	PANAMA	PARAGUAY	SURINAME	TRINIDAD	WEST INDIES	BELGIUM	INDONESIA	ITALY	JAPAN	SOUTH AFRICA	SWEDEN	UNITED KINGDOM	WEST GERMANY	COUNTRY UNKNOWN*	TOTAL
MACAWS	1977		1182				1505	2		43	42	343	40	119	2						50		2	566	3896
	1978	1	3330			47	220	13	52	3	235	821	14	389	2	26	225	291	1	10	64			604	6348
	+ 1979		3115		82	225	207	1	2		524	309	2	47							32	30		1100	5676
CONURES	1977		1750	150			1531	54		400		4092	997	200										1777	10951
	1978	452	5285				874		70			11893	150	60			80				56			1492	20412
	+ 1979		2636				332					150												1413	4531
PARAKEETS	1977											1284	586	600										200	2670
	1978		734								300	2006												114	3154
	+ 1979		250									75													325
PARROTLETS	1977						10						689												699
	1978												100	525							50			1039	1714
	+ 1979		50				9																	154	213
CAIQUES	1977						424						115											272	811
	1978		120				146						30				18				50			111	475
	+ 1979						50																		50
PARROTS	1977		50				2					381	141											107	681
	1978		167			2	42					404	3	320			3			6	52			117	1116
	+ 1979		281				63				6													273	623
AMAZONS	1977		1981				5513	83		1		2768	64	1892									24	1179	13505
	1978		370		35	348	1841	300	1300		361	1882		1215						28	265			4689	12634
	+ 1979		992		378	60	1552				304	675												2418	6379
UNSPECIFIED S. AMERICAN PSITTACINES	1977												100	518	1										619
	1978																								0
	+ 1979										220														220
TOTAL PSITTACINES	1977		4963	150			8985	139		444	42	8868	2732	3329	3						50		26	4101	33832
	1978	453	10,006		35	397	3123	313	1422	3	896	17006	297	2509	2	26	326	291	1	44	537			8166	45853
	+ 1979		7324		460	285	2213	1	2		1054	1209	2	47							32	30		5358	18017

* Most of this is supplemental data found in reports received from Miami Quarantine Stations. These reports do not list country of origin.

+ January-August only.

Source: 3-177 Declaration of Import documents/ Courtesy of Law Enforcement Division, FWS, USDI.

BEST AVAILABLE COPY

TABLE 3

IMPORTS OF PSITTACINES INTO SWITZERLAND

	1976	1977	1978
Anodorhynchus hyacinthinus	15	7	40
Ara spp.	71	76	120
Aratinga spp.	45	21	114
Nandayus nenday	2	-	4
Cyanoliseus patagonus	-	4	15
Pyrrhura spp.	-	6	15
Enicognathus spp.	-	-	4
Myiopsitta monachus	-	5	13
Forpus spp.	8	1	1
Brotogeris spp.	-	42	36
Pionites spp.	15	16	9
Pionus spp.	23	29	48
Amazona spp.	508	513	582
Bolborhynchus spp.	-	30	-
Deroptyus accipitrinus	2	1	-
TOTAL	689	751	1001

Source: Switzerland CITES Reports

TABLE 4

1979 EXPORTS OF PSITTACINES FROM PERU

	QUANTITY	DESTINATION
Ara militaris	1	USA
Ara spp.	6	USA
	4	CANADA
Aratinga erytrogenys	1497	USA
Aratinga wagleri	1042	USA
	1	AUSTRALIA
	2	BAHAMAS
	2	FRANCE
Aratinga spp.	1000	USA
	2	CANADA
	2	SWITZERLAND
	1	HOLLAND
Brotogeris pyrrhopteris	200	USA
Brotogeris spp.	6500	USA
Pionus menstruus	6	USA
	1	AUSTRALIA
	1	SWITZERLAND
Amazona amazonica	1	USA
Amazona farinosa	1	USA
Amazona mercenaria	1	USA
Amazona spp.	1	USA
TOTAL	10,272	

Source: 1979 Peru CITES Report

TABLE 5

DISTRIBUTION OF NEOTROPICAL PSITTACINES IN TRADE

	MEXICO	GUATEMALA	EL SALVADOR	HONDURAS	NICARAGUA	COSTA RICA	PANAMA	COLOMBIA	ECUADOR	PERU	VENEZUELA	TRINIDAD	GUYANA	SURINAME	BRAZIL	BOLIVIA	PARAGUAY	ARGENTINA	URUGUAY	CHILE
MACAWS																				
ANODORHYNCHUS HYACINTHINUS															X	X				
ARA ARARAUNA							X	X	X	X	X	X	X	X	X	X	X	?		
ARA CANINDE																X	?	X		
ARA MILITARIS	X							X	X	X	X					X		X		
ARA AMBIGUA				X	X	X	X	X	X											
ARA MACAO	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ARA CHLOROPTERA							X	X	X	X	X		X	X	X	X	X	?		
ARA RUBROGENYS																X				
ARA AURICOLLIS															X	X	X	X		
ARA SEVERA							X	X	X	X	X		X	X	X	X				
ARA MANILATA								X	X	X	X	X	X	X	X	X				
ARA MARACANA															X		X	X		
ARA COULONI										X					X					
ARA NOBILIS											X	?	X	X	X	X				
CONURES																				
ARATINGA ACUTICAUDATA								X			X				X		X	X	X	
ARATINGA HOLOCHLORA	X	X	X	X	X															
ARATINGA WAGLERI								X	X	X	X									
ARATINGA MITRATA										X						X	?	X		
ARATINGA ERYTHROGENYS									X	X										
ARATINGA LEUCOPHTHALMUS								X	X	X	X		X	X	X	X	X	X	X	
ARATINGA EUOPS*																				
ARATINGA AURICAPILLA															X					
ARATINGA JANDAYA															X					
ARATINGA SOLSTITIALIS											X		X	X	X					
ARATINGA WEDDELLII								X	X	X					X	X				
ARATINGA NANA	X	X	X	X	X	X	X													
ARATINGA CANICULARIS	X	X	X	X		X														
ARATINGA PERTINAX							X	X			X		X	X	X					
ARATINGA CACTORUM															X					
ARATINGA AUREA													?	X	X	X	X	X		

TABLE 5
(cont.)

	MEXICO	GUATEMALA	EL SALVADOR	HONDURAS	NICARAGUA	COSTA RICA	PANAMA	COLOMBIA	ECUADOR	PERU	VENEZUELA	TRINIDAD	GUYANA	SURINAME	BRAZIL	BOLIVIA	PARAGUAY	ARGENTINA	URUGUAY	CHILE
CONURES (CONT.)																				
NANDAYUS NENDAY															X	X	X	X		
PYRRHURA DEVILLEI															X	X	X			
PYRRHURA FRONTALIS															X		X	X	X	
PYRRHURA MOLINAE															X	X		X		
PYRRHURA PICTA								X		X	X		X	X	X	X				
PYRRHURA CALLIPTERA								X												
PYRRHURA RHODOCEPHELA											X									
ENICOGNATHUS LEPTORHYNCHUS																				X
CYANOLISEUS PATAGONUS																		X	X	X
PARAKEETS																				
MYIOPSITTA MONACHUS															X	X	X	X	X	
BOLBORHYNCHUS AYMARA																X		X		
BROTOGERIS VERSICOLORUS								X	X	X					X	X	X	X		
BROTOGERIS JUGULARIS	X	X	X	X	X	X	X	X			X									
BROTOGERIS CHRYSOPTERUS											X		X	X	X					
BROTOGERIS SANCTITHOMAE								X	X	X					X	X				
PARROTLETS																				
FORPUS PASSERINUS								X			X	X	X	X	X					
FORPUS XANTHOPTERYGIUS								X		X					X	X	X	X		
FORPUS SCLATERI								X	X	X	X		X	X	X	X				
CAIQUES																				
PIONITES MELANOCEPHALA								X	X	X			X	X	X					
PIONITES LEUCOGASTER									X	X					X	X				

TABLE 5
(cont.)

	MEXICO	GUATEMALA	EL SALVADOR	HONDURAS	NICARAGUA	COSTA RICA	PANAMA	COLOMBIA	ECUADOR	PERU	VENEZUELA	TRINIDAD	GUYANA	SURINAME	BRAZIL	BOLIVIA	PARAGUAY	ARGENTINA	URUGUAY	CHILE
PARROTS																				
HAPALOPSITTACA MELANOTIS										X						X				
PIONUS MENSTRUUS						X	X	X	X	X	X	X	X	X	X	X				
PIONUS SORDIDAS								X	X	X	X					X				
PIONUS MAXIMILIANI															X	X	X	X		
PIONUS TUMULTUOSUS										X						X				
PIONUS SENILUS	X	X	X	X	X	X	X													
PIONUS FUSCUS								X			X		X	X	X					
DEROPTYUS ACCIPITRINUS								X	X	X	X		X	X	X					
TRICLARIA MALACHITACEA															X					
AMAZONS																				
AMAZONA AESTIVA															X	X	X	X		
AMAZONA ALBIFRONS	X	X	X	X	X	X	X													
AMAZONA AMAZONICA								X	X	X	X	X	X	X	X	X				
AMAZONA AUTUMNALIS	X	X	X	X	X	X	X	X	X		X				X					
AMAZONA DUFRESNIANA											X		X	X	X					
AMAZONA FARINOSA	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X				
AMAZONA FINSCHI	X																			
AMAZONA OCHROCEPHALA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
AMAZONA PRETREI															X		?	X	?	
AMAZONA TUCUMANA																X		X		
AMAZONA VIRIDIGENALIS	X																			
AMAZONA XANTHOPS															X					

Source: Forshaw, 1973; Clements, 1978; Nilsson & Mack, 1980; Ridgely, pers. comm., 1980.

BEST AVAILABLE COPY

TABLE 6

COUNTRY OF ORIGIN DISCREPANCIES
(Cont.)

	EXPORTING COUNTRY	* SPECIES REPORTEDLY FOUND ONLY IN:
BROTOGERIS CHRYSOPTERUS	PARAGUAY, TRINIDAD	BRAZIL, VENEZUELA, SURINAME, GUYANA
BROTOGERIS JUGULARIS	PARAGUAY, BOLIVIA	MEXICO, CENTRAL AMERICA, COLOMBIA, VENEZUELA
DEROPTYUS ACCIPITRINUS	PARAGUAY	GUYANA, SURINAME, BRAZIL, PERU COLOMBIA, ECUADOR
TRICLARIA MALACHITACEA	BOLIVIA	BRAZIL
HAPALOPSITTACA MELANOTIS	GUYANA	PERU, BOLIVIA
PIONITES LEUCOGASTER	GUYANA	BRAZIL, BOLIVIA, PERU, ECUADOR
AMAZONA AESTIVA	EL SALVADOR, BUYANA, TRINIDAD	BRAZIL, PARAGUAY, ARGENTINA
AMAZONA AMAZONICA	PANAMA	COLOMBIA, VENEZUELA, GUYANA, SURINAME, PERU, BRAZIL, TRINIDAD
AMAZONA OCHROCEPHALA	PARAGUAY	MEXICO, CENTRAL AMERICA, GUYANA, SURINAME BOLIVIA, TRINIDAD, VENEZUELA, ECUADOR BRAZIL
AMAZONA PRETREI	GUYANA, TRINIDAD, PANAMA	BRAZIL, ARGENTINA, URUGUAY, PARAGUAY
AMAZONA XANTHOPS	PARAGUAY	BRAZIL

---

* Based on Forshaw (1973) and Ridgely, pers. comm. (1980).

TABLE 6

COUNTRY OF ORIGIN DISCREPANCIES

	EXPORTING COUNTRY	* SPECIES REPORTEDLY FOUND ONLY IN:
ANODORHYNCHUS HYACINTHINUS	PARAGUAY	BRAZIL, BOLIVIA
ARA MANILATA	PARAGUAY	TRINIDAD, SURINAME, GUYANA, PERU VENEZUELA, COLOMBIA, BRAZIL
ARATINGA HOLOCHLORA	BOLIVIA, PARAGUAY	MEXICO, GUATEMALA, HONDURAS, NICARAGUA, EL SALVADOR
ARATINGA AURICAPILLA	PARAGUAY	BRAZIL
ARATINGA CANICULARIS	BOLIVIA	MEXICO, GUATEMALA, EL SALVADOR HONDURAS, COSTA RICA
ARATINGA CACTORUM	PARAGUAY, TRINIDAD	BRAZIL
ARATINGA EUOPS	BOLIVIA	CUBA
ARATINGA JANDAYA	PARAGUAY	BRAZIL
ARATINGA NANA	BOLIVIA	JAMAICA, MEXICO, CENTRAL AMERICA
ARATINGA PERTINAX	BOLIVIA	PANAMA, VENEZUELA, COLOMBIA SURINAME, GUYANA
ARATINGA WAGLERI	BOLIVIA, PARAGUAY	VENEZUELA, COLOMBIA, ECUADOR, PERU
CYANOLISEUS PATAGONUS	PARAGUAY	CHILE, ARGENTINA, URUGUAY
NANDAYUS NENDAY	GUYANA	BOLIVIA, BRAZIL, PARAGUAY, ARGENTINA
PYRRHURA PICTA	NICARAGUA	SURINAME, GUYANA, VENEZUELA, BRAZIL PERU, BOLIVIA, COLOMBIA
PYRRHURA RHODOCEPHELA	PARAGUAY	VENEZUELA
PYRRHURA CALLIPTERA	BOLIVIA	COLOMBIA

TABLE 7

STATUS OF NEOTROPICAL PSITTACINES

SCIENTIFIC AND COMMON NAMES	DISTRIBUTION	CITES		I.U.C.N.
		APP. I	APP. II	
Anodorhynchus glaucus (Glaucus macaw)	Paraguay, Argentina, Brazil, possibly Uruguay	X		E
Anodorhynchus leari (Indigo macaw)	Brazil	X		E
Cyanopsitta spixii (Little Blue macaw)	Brazil	X		V
Ara ambigua guayaquilensis (Guayaquil Great Green macaw)	Ecuador			I
Ara caninde (Caninde macaw)	Bolivia, Argentina, and possibly Paraguay			I
Aratinga guaruba (Golden conure or parakeet)	Brazil	X		V
Ognorhynchus icterotis (Yellow-eared conure)	Colombia, Ecuador			V
Rhynchopsitta pachyrhyncha (Thick-billed parrot)	Mexico	X		
R. p. pachyrhyncha (Thick-billed parrot)	Mexico			V
R. p. terrisi (Maroon-fronted parrot)	Mexico			E
Cyanoliseus patagonus byroni (Greater Patagonian conure)	Chile, Argentina		X	
Pyrrhura cruentata (Blue-throated conure)	Brazil	X		R
Bolborhynchus ferrugineifrons (Rufous-fronted parakeet)	Colombia			I

BEST AVAILABLE COPY

TABLE 7
(cont.)

SCIENTIFIC AND COMMON NAMES	DISTRIBUTION	CITES		I.U.C.N.
		APP. I	APP. II	
Touit melanonota (Brown-backed or Black-eared parrotlet)	Brazil			R
Touit surda (Golden-tailed parrotlet)	Brazil			I
Pionopsitta pilcata (Brazilian pilliated parrot)	Brazil, Argentina	X		
Hapalopsittaca amazonina fuertisi (Indigo-winged parrot)	Colombia			I
Amazona arausiaca (Red-necked Amazon parrot)	Dominica			E
Amazona brasiliensis (Red-tailed Amazon parrot)	Brazil			E
Amazona guildingii (St. Vincent Amazon parrot)	St. Vincent	X		E
Amazona imperialis (Imperial Amazon parrot)	Dominica	X		E
Amazona leucocephala (Caribbean Amazon parrot)	Bahamas, Cuba	X		
A. l. bahamensis (Bahama Amazon parrot)	Bahamas	X		R
A. l. hesterna (Cayman Brac Amazon parrot)	Cayman Islands	X		R
Amazona pretrei (Red-spectacled parrot)	Brazil, Argentina, and possibly Uruguay			V

TABLE 7
(cont.)

SCIENTIFIC AND COMMON NAMES	DISTRIBUTION	CITES APP. I	CITES APP. II	I.U.C.N.
Amazona pretrei pretrei (Red-spectacled Amazon parrot)	Brazil, Uruguay	X		V
Amazona rhodocorhytha = *Amazona viridigenalis* (Red-crowned or Green-cheeked parrot)	Mexico	X		
Amazona versicolor (St. Lucia Amazon parrot)	St. Lucia	X		E
Amazona vinacea (Vinaceous Amazon parrot)	Brazil, Argentina	X		
Amazona vittata (Red-fronted Amazon parrot or Puerto Rican parrot)	Puerto Rico	X		E

E - Endangered; R - Rare; V - Vulnerable; I - Indeterminate

Source: CITES listings as of March, 1980, and I.U.C.N. *Red Data Book*.

X 4200 1.8

TRAFFIC(U.S.A.)

1601 Connecticut Avenue N.W., Washington, D.C. 20009 Telephone: (202) 797-7901 Cable PANDAFUND Telex 64505

THE HARVEST OF NORTHEASTERN FURBEARERS, PAST AND PRESENT

by

Laura Grady

and

Nicole Duplaix

presented at

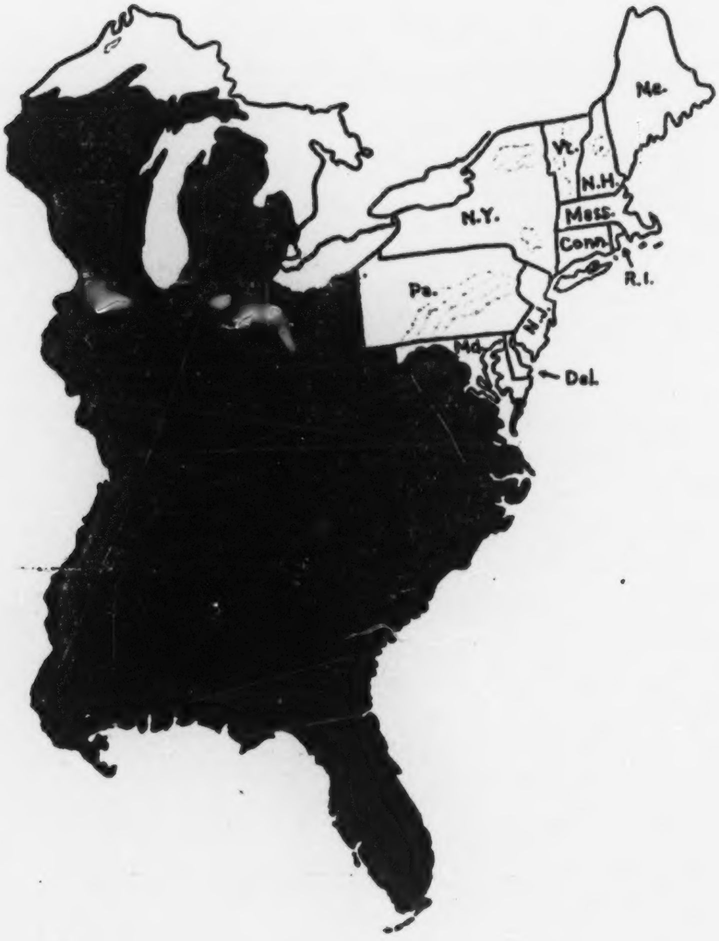
The Northeast Endangered Species Conference

9-11 May 1980

Provincetown, Massachusetts

WORLD WILDLIFE FUND-U.S.

TRAFFIC (U.S.A.)—Trade Records Analysis of Flora and Fauna in Commerce—is a scientific information-gathering program monitoring trade in wildlife, plants, and their products. It is funded by World Wildlife Fund-U.S.


Me.
Vt.
N.H.
N.Y.
Mass.
Conn.
R.I.
Pa.
N.J.
Md.
Del.

I. History

One must look back to the early 1500s to fully understand the evolution of the trade in furbearers in the northeastern states. At that time, early French explorers returned to Europe with news of the vast numbers of furs available in North America. The French then claimed possession of much of the coast and encouraged settlement in order to expand the fur trade and bolster the French economy. The Dutch and the English quickly followed suit. At first, Europeans obtained furs from the Indians who traded pelts for blankets, beads, weapons, and liquor. Later, many colonists turned to trapping as a profession. The European demand for furs at this time cannot be overemphasized. The European and Russian furbearers were depleted or extirpated over much of their range, and furs were basic and necessary winter garments in largely unheated houses. Suddenly, the North American continent offered an apparently unlimited supply of furs which was a tremendous incentive to further explore the continent westward and southward. North America was founded on its fur industries, and the first large fortune made was that of John Jacob Astor, a fur merchant.

Beaver, otter, elk, deer, and bear populations began declining in the northeast by the early 18th century as a result of heavy fur harvesting and exporting (Table 1). By 1650, beavers were greatly reduced in the coastal plain between Maine and South Carolina; by 1750, beavers were so rare in New England that New York became the major source of supply. The eastern races of elk, bison, and caribou were exterminated by the late 19th century. The last sea mink, a large mink endemic to New Brunswick, Nova Scotia, and Maine, was killed in 1880. The attitude that predators were vermin to be systematically eliminated resulted in the extirpation of wolves, cougars, and bears by the early 1800s. Attention was transferred to the previously scorned trash species such as opossums, moles, skunks, and muskrats.

The industrial revolution, which produced inexpensive clothing, and the economic hardships of World War I caused a temporary lull in the fur trade. There followed a period of prosperity which made furs available to more moderate income groups for whom fur became a symbol of wealth and glamour. Pelt prices were high, and mink, marten, fisher, otter, and beaver populations again quickly became depleted nationwide. For example, otter pelts were worth $120 each in 1920, which is twice the average otter pelt price of 1977. The demand for furs still exceeded the supply, so fox and mink ranches became major suppliers. Southern species, once considered inferior to the more haevily and densely furred northern species, began to be trapped in earnest, particularly in Louisiana and Florida.

In the 1930s and 1940s, certain states began setting trapping seasons for the more valuable furbearers such beaver, marten, otter, and fisher, but year-round trapping, denning, and poisoning of predators continued.

Increased industrialization in the 1950s and 1960s, resulting in habitat destruction and higher pollution levels, helped precipitate furbearer population declines. Destruction of wetlands in northeastern states further decreased the numbers of beaver, otters, and muskrat. In the 1960s, the popularity of furs dwindled until successful marketing of "fun furs" boosted sagging sales, so that by 1966, the United States had become the leading consumer and producer of furs. These furs, using primarily lamb and rabbit, were styled to appeal to a younger market and were relatively inexpensive. Some expensive wild furs, such as that of wolf, raccoon, lynx, and spotted cats, were sold. The enormous popularity of spotted cat fur in Europe and the United States in the late 1950s and 1960s may have helped caused the alarming decline of spotted cat populations throughout the world. Environmentalists and humane organizations focused on spotted cats in their campaign against the fur industry. As a result of increased public consciousness with respect to the depletion of wildlife, the popularity of furs decreased. However, changes in marketing techniques again allowed for a resurgence of that popularity in the late 1970s. The export of furs from the United States to Japan and Germany, the largest fur consumers in the world, has increased over the last decade. In that time, pelt prices have risen 1122%, and retail fur sales increased 372% between 1970 and 1978. Annual fur sales peaked at $750 million in 1978, and $1 billion is expected for 1979.

The average price for the pelts of all furbearers, with the exception of the beaver, has risen sharply; striking examples are the bobcat, which rose from $10 in 1970 to $126 in 1977, the otter, which rose from $18 in 1970 to $65 in 1977, the fisher, which rose from $26.50 in 1970 to $100.41 in 1977 and the gray fox, which rose from $3.50 in 1970 to $34 in 1976. Not surprisingly, the harvest of many species has followed this price incentive. For instance, nationwide, the bobcat harvest rose from 10,822 in 1970 to 106,547 in 1976, the red fox harvest rose from 151,818 in 1971 to 314,774 in 1977, the striped skunk harvest rose from 16,486 in 1971 to 173,722 in 1977, the opossum harvest rose from 101,278 in 1970 to 1,064,725 in 1976, and the raccoon harvest rose from 1,089,803 in 1970 to 3,832,802 in 1976. In the northeast, the trapping of red and gray foxes, otters, martens, muskrats, and skunks has increased dramatically (Table 3).

The Endangered Species Act (1973) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which came into effect in 1975, were enacted in the attempt to regulate trade in endangered, rare, and protected species. Lynx, bobcats, and otters are North American furbearers listed on Appendix II. of the CITES and are thereby subject to federal regulation with respect to their harvesting for export. The Endangered Species Scientific Authority (now the Office of the Scientific Authority) accumulated data from state management agencies, and, in 1977, imposed export quotas and required pelt-tagging for otters, bobcats, and lynx on a state by state basis. This information is summarized in Table 2. The states objected vehemently to federal interference in an area previously subject to only state control. Quotas were imposed for only that year, but presently, annual updates are required from each state with information on biological status, harvest data, regulatory regimes, and future management plans. Several states have closed seasons for the three species in question (Table 1), and others have state determined harvest objectives.

II. Methodology

Data for fifteen species of furbearers occurring in the northeastern United States have been obtained from 1) The International Association of Fish and Wildlife Agencies, 2) letters and telephone conversations with state wildlife agency authorities, and 3) the Endangered Species Scientific Authority, in the case of the bobcat and the otter. Several states report only the numbers of animals trapped and not those shot by hunters. For some species, such as the bobcat, more are shot incidentally by game hunters than are taken by professional trappers. The International Association of Fish and Wildlife Agencies' questionnaire asked for the number of pelts rather than the harvest numbers, and, as a result, some states interpreted this as only the number of pelts sold rather than the actual take. For instance, in California, a harvest of 3618 bobcats was reported to that association for the 1976-1977 season, but the Endangered Species Scientific Authority determined the actual take to be 12,800.

Methods of reporting the take to state agencies vary. Some states require reports directly from the trapper, but often harvest data are obtained from fur dealer reports or tagging for export. For many furbearers, the states do not require any reports from the trapper or hunter, although the tendency is now towards required reporting. Some state agencies are gathering harvest data from voluntary questionnaires. In New York, where the reported take of most furbearers is not required and fur dealers are not licensed, some data are obtained only from questionnaires. Animal Damage Control totals also contribute to harvest totals.

Dealer reports are an unreliable method of obtaining harvest numbers. Total numbers of pelts obtained may be understated to allow for tax free income, and often states have no authority to supervise dealers. A trapper may not be required to sell his pelts in the state of capture, nor may the fur dealer be required to report his purchases to that state. Some trappers take their furs directly to fur auctions in Canada. Pelts can even be bought and sold more than once from smaller dealers to bigger dealers. The problem is compounded when dealing occurs across state lines. However, this type of confused reporting system is more characteristic of the southeast than the northeast where states depend more on tagging and direct reports for harvest numbers.

Furbearer harvest data from eleven northeastern states have been reported in Table 3 and Figures 3a-g.

Marten and Fisher: The marten and fisher continue to be relatively scarce in the northeast as a result of overtrapping. Of the eleven northeastern states covered by this report, the marten is present only in Maine, New Hampshire, and New York. Maine opened the fisher season in 1973, and New York has had a marten season only since 1978. New Hampshire retains a closed season. The fisher is not present in Connecticut, Delaware, and Pennsylvania and had a closed season in Rhode Island at the time of this report. An average take of only 3864 fisher has been reported in all eleven states from 1970 to 1977.

Coyote: Several state wildlife officials have evidence that the coyote population is increasing in the northeastern states. Maine and New Hampshire began reporting the take of coyotes in the early 1970s, and New York will require reporting in 1980.

Black bear: Most states classify black bear as a game animal, not a furbearer (New Hampshire does not classify it as either) and do not include it in fur management programs. Very few are trapped, and few pelts are sold regardless of the method of take. Data on black bear are based largely on hunter reports and were therefore not reported by the International Association of Fish and Wildlife Agencies. Data were obtained directly from the states, and, because only the northeastern states were contacted, totals for the country are unavailable for comparison.

Miscellaneous: The spotted skunk, short-tailed weasel, and nutria are species of furbearers that occur to varying degrees in the northeastern states. The spotted skunk occurs only in Maryland and has had no harvest recorded in the past ten years. The short-tailed weasel take is included with the long-tailed weasel harvest. The nutria occurs only in Delaware and Maryland; only the Maryland harvest is reported.

Some species such as the opossum, coyote, bobcat, long-tailed weasel, and skunk show sharp increases in numbers harvested starting with the 1976 season. This probably reflects better reporting practices rather than actual trapping increases.

III. State by state synopses

The following state by state synopses provide background information and should be used in conjunction with the tables and figures.

Connecticut: Not present: marten and fisher
Protected: bobcat and black bear

There have been no confirmed sighting of fisher although they may be present in the northern part of the state.

The report of the taking of gray fox is required only if it is taken on state owned lands; the actual harvest is considerably higher.

Delaware: Not present: black bear, bobcat, coyote, fisher, and marten
Protected: beaver and red fox

Report of the take is required for only otter, mink, raccoon, and marten.

There is no legal take of red fox; fox hunters are allowed to chase them on horseback but not to harm them.

Beaver were extirpated natural reintroduction occurred in recent years from Maryland. The low beaver population is protected. The state regards them as undesirable, and wildlife agents trap them for release in Maryland.

Maine: Protected: opossum

The gray fox population has been low in recent years and is said to occur only in the southwest of the state. Harvest numbers have been included in red fox totals. Fox carcass collection was instigated two years ago, so fox data should now be reported separately.

Maryland: Not present: marten
Protected: black bear (starting in 1979) and bobcat

The spotted skunk occurs in Maryland but none has been reported taken.

The fisher was reintroduced to West Virginia several years ago and now occurs in small numbers in western Maryland.

New Jersey: Not present: marten, fisher, and short-tailed weasel
Protected: bobcat, coyote, and otter

Trapper harvest surveys did not begin until 1974.

New York: No species is protected or absent, although marten were protected until the 1978 season.

The black bear pelt must be tagged, but very few are sold. Most bears are mounted as trophies.

Coyote pelt tagging is required as of 1 April 1980, and harvest numbers will be reported.

Raccoon data are from a telephone survey; muskrat data are from questionnaires.

Pennsylvania: Not present: marten and fisher
Protected: otter and bobcat

Rhode Island: Not present: marten and black bear
Protected: coyote, fisher, beaver, and bobcat

The beaver population is increasing, and re-opening of the season is anticipated.

The fisher may not be present but is protected in any case.

One coyote was shot in 1979 as a nuisance. A wildlife agent estimated that perhaps two have been shot in the last ten years.

Massachusetts: Not present: marten
Protected: coyote (starting in 1979)

In 1970, the bear hunting season was reduced to just six days late in the year when most of the bears are often already hibernating. The bear take is therefore very small.

New Hampshire: Protected: marten

The fisher season was closed for 1977 and 1978 seasons.

The coyote is considered a furbearer.

The black bear is a game animal whose pelt has not been sold since 1945.

Seals are required on all furbearer pelts except the muskrat, weasel, and skunk.

The opossum is the only furbearer whose take need not be reported.

The last lynx was harvested in 1964; the lynx is currently classified as endangered and has been protected since 1971.

Carcasses of otter, fisher, and coyote must be turned over to the state. Research is being conducted on these species' age composition, sex ratios, and reproduction.

Vermont: Protected: marten

There was an unregulated harvest and a bounty on the bobcat until 1970. From 1970 to 1975, the take was not required to be reported.

Only the fisher, beaver, otter, and bobcat pelt data are recorded individually. Data on other furbearers are from furbuyer reports.

ACKNOWLEDGEMENTS

This report was prepared at very short notice at the request of the organizers of the Northeast Endangered Species Conference and, due to the constraint of time, we had to rely on the good graces of a large number of people. We would like to thank Dr. Peter Escherich of the Office of the Scientific Authority who opened his files to us and gave us many helpful leads. Dr. Duane Pursley and Mr. Eugene Deems gave us permission to use data published in the *North American Furbearers* and recent unpublished harvest figures. Ms. Ginger Merchant of Defenders of Wildlife advised us on the bobcat trade, and Guy Hodge of the Humane Society of the United States ransacked his files on our behalf; to both our grateful thank you. We are particularly indebted to the following people from state wildlife agencies who cheerfully answered our numerous questions and queries for missing data: Joseph Risigo (Connecticut), Tom Wittendale (Delaware), Henry Hilton and Chester Banasiak (Maine), Chet McCord (Massachusetts), Howard Nowell (New Hampshire), Joseph Penkala (New Jersey), Mark Brown (New York), James Chadwick (Rhode Island), and Walter Cottrell (Vermont).

REFERENCES

DEEMS, E.F., Jr., & D. PURSLEY. 1978. North American Furbearers. International Association of Fish and Wildlife Agencies.

FEDERAL REGISTER:
Vol. 43, No. 52 16 March 1978
Vol. 43, No. 69 10 April 1978
Vol. 43, No. 152 7 August 1978
Vol. 43, No. 171 1 September 1978
Vol. 44, No. 135 12 July 1979
Vol. 44, No. 175 7 September 1979
Vol. 44, No. 188 26 September 1979

LERNER, W. 1975. Historical Statistics of the United States - Colonial Times to 1970. U.S. Department of Commerce.

NILSSON, G., C. STEVENS & J. GLEIBER. in press. Facts About Furs. Animal Welfare Institute. Washington, D.C.

IV. Tables and Figures

Abbreviations used in the tables are:

X- species not present

NR- harvest of species not reported. Reporting may not be required or data may just be absent.

CS- closed season, species is protected

CS?- the wildlife management official in Rhode Island is uncertain of the exact year of closure.

I- harvest of gray fox included with red fox

NA- data for bear take in New Jersey exist but are not readily available.

?- unable to determine why data were not reported; data may not be required or season may be closed

The histogram in Figure 1 shows the export of furs in the 1700s from all the British American colonies with the proportion from New England depicted in the white section of each bar.

The histograms in Figures 2a-c provide comparisons of the harvests in 1970 and 1976 seasons for all fifteen species of furbearers. The range of pelt prices for each species over the same time period is given below each bar.

Histograms (Figures 3a-g) have been provided for a few species to show increases in harvest numbers and pelt prices. The white part of the histogram represents the northeastern states' proportion of the take in the continental United States. The numbers at the bottom of each bar are the percentage that the northeastern states' take represents. Pelt prices are depicted linearly.

TABLE 1

EXPORTS OF FURS FROM AMERICAN CROWN COLONIES TO ENGLAND (£ STERLING)

Year	New England	New York	Pennsylvania	Virginia/ Maryland	All Colonies
1700	2435	4962	723	2433	16,284
1710	1595	2148	88	754	7840
1720	2119	5393	849	467	19,377
1730	2010	2611	1642	493	22,348
1739	2481	5073	329	641	25,196
1750	1015	5710	1909	282	22,817
1760	946	1023	1879	21	19,985
1770	2453	2340	1148	169	47,758

Source: Lerner, 1975.

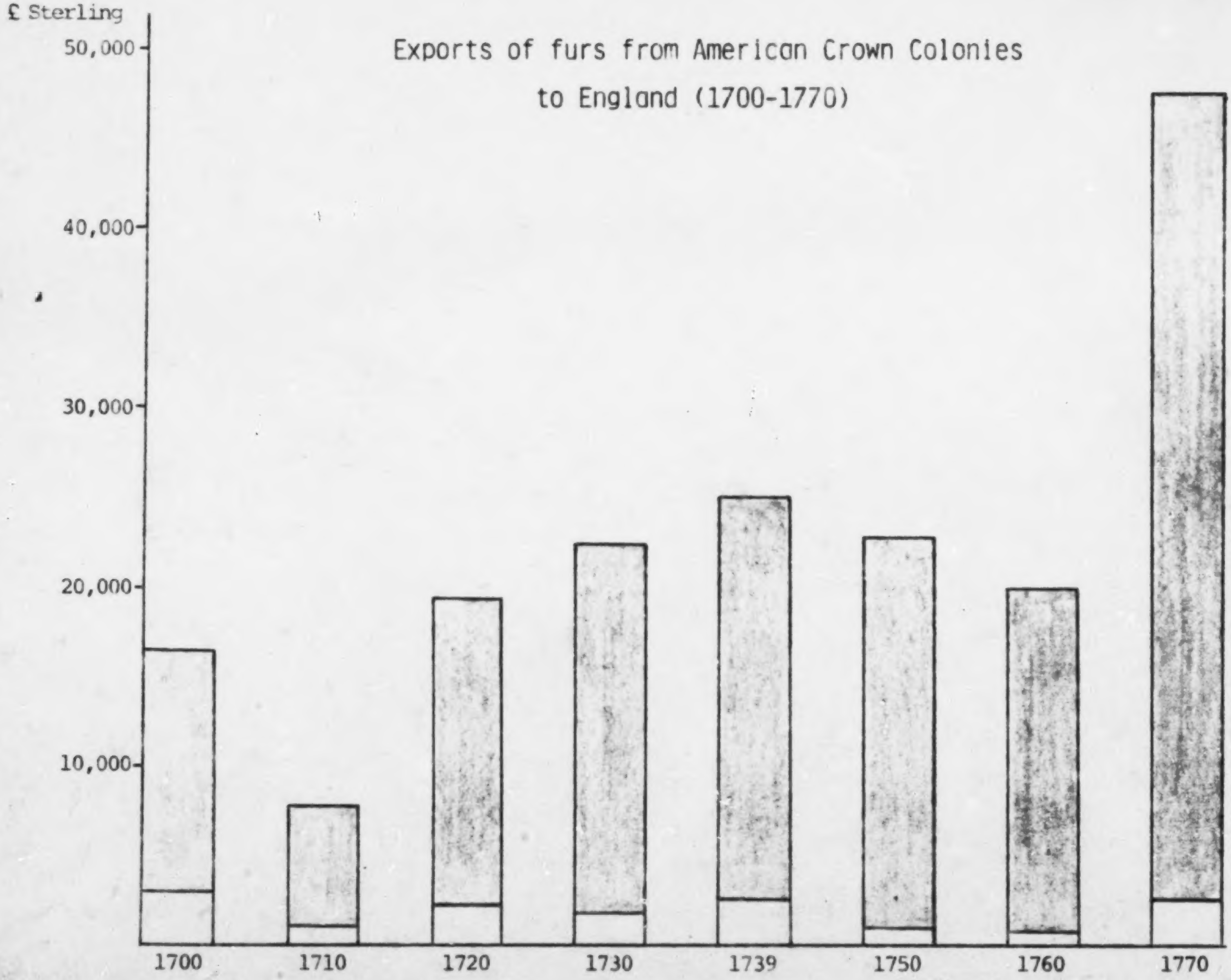
EXPORTS OF FURS FROM NORTH AMERICA IN 1763

Beaver	75,040
Bear	8,340
Otter	8,060
Fisher	2,800
Marten	43,247
Wolverine	59
Wolf	606
Lynx	4,150
Mink	1,030
Fox	2,300
Raccoon	39,000
Muskrat	6,080
Elk	1,568
Deer	6,511

Source: Poland, ~~1763~~ 1892. Cited in Nilsson, 1980.

BEST AVAILABLE COP

Figure 1



Exports of furs from American Crown Colonies to England (1700-1770)

TABLE 2

BOBCAT AND OTTER HARVEST AND EXPORT DATA (1978 and 1979)

Bobcat *Lynx rufus*	Harvest 77-78	Exports FY 78	Harvest 78-79	Exports FY 79
Connecticut	CS	-	CS	-
Delaware	x	-	x	-
Maine	389	8	280	111
Maryland	CS	-	CS	-
Massachusetts	19	0	29	9
New Hampshire	CS	-	CS	-
New Jersey	CS	-	CS	-
New York	90	5	159	34
Pennsylvania	CS	-	CS	-
Rhode Island	CS	-	CS	-
Vermont	92	0	59	5

Otter *Lutra canadensis*	Harvest 77-78	Exports FY 78	Harvest 78-79	Exports FY 79
Connecticut	63	13	74	42
Delaware	70	0	45	16
Maine	675	622	693	549
Maryland	187	4	262	171
Massachusetts	163	58	121	98
New Hampshire	236	26	206	113
New Jersey	CS	-	CS	-
New York	467	27	677	259
Pennsylvania	CS	-	CS	-
Rhode Island	15	7	25	21
Vermont	42	43	76	36

CS: Closed season, animal is protected.

Source: Endangered Species Scientific Authority records, 1980.

BEST AVAILABLE COPY

Figure 2b Comparison of Harvest Numbers in the 1970-1971 and 1976-1977 Seasons

Range of Pelt Prices from 1970-1976

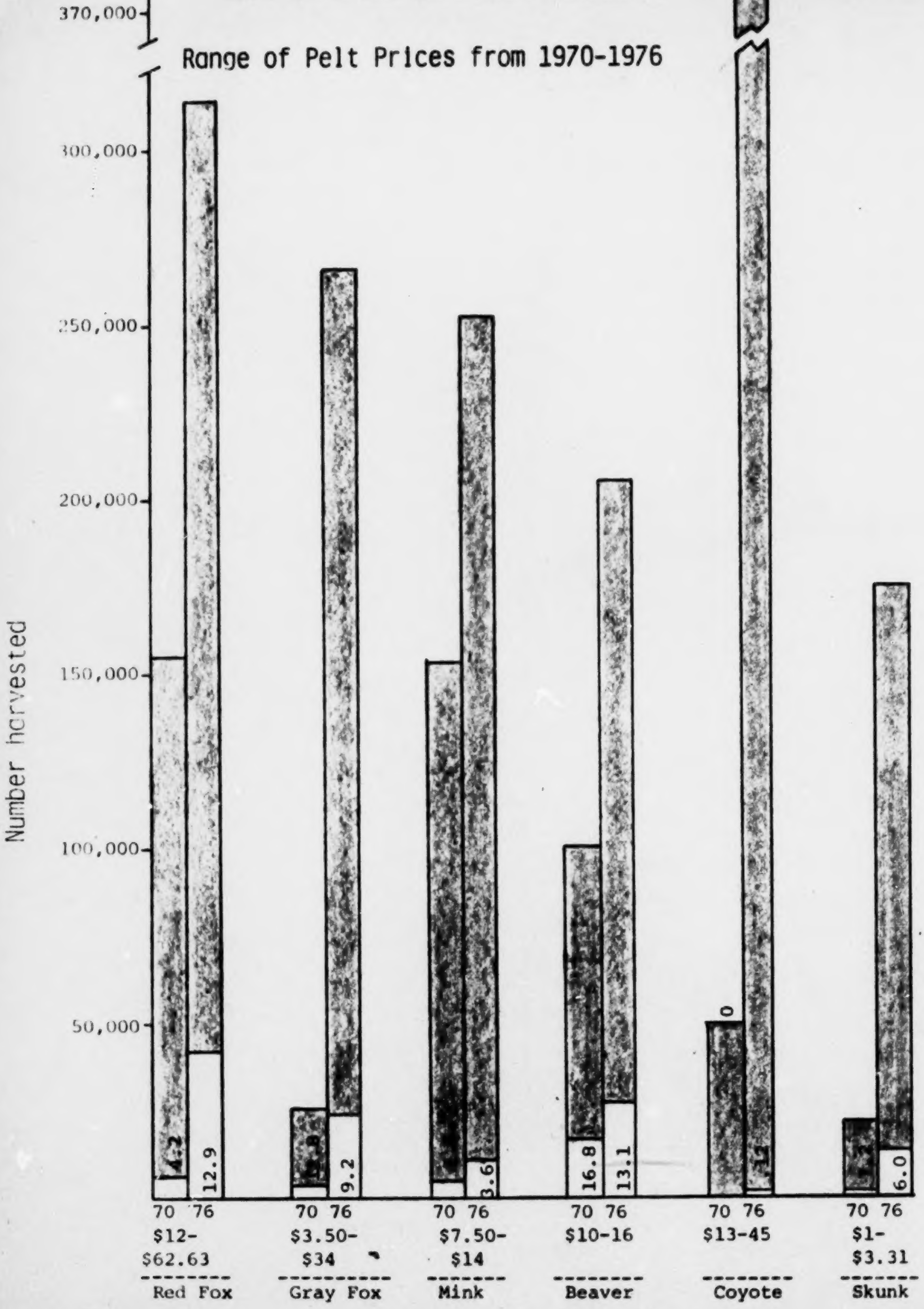


Figure 2c

Comparison of Harvest Numbers in the 1970-1971 and 1976-1977 Seasons

Range of Pelt Prices from 1970-1976

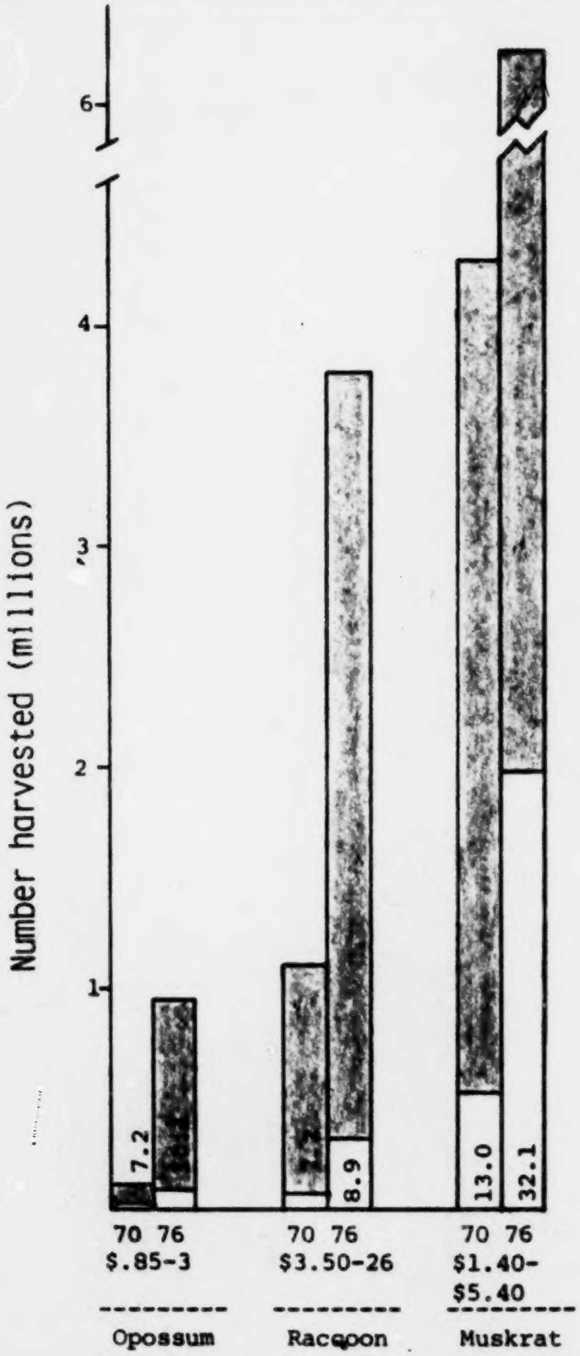
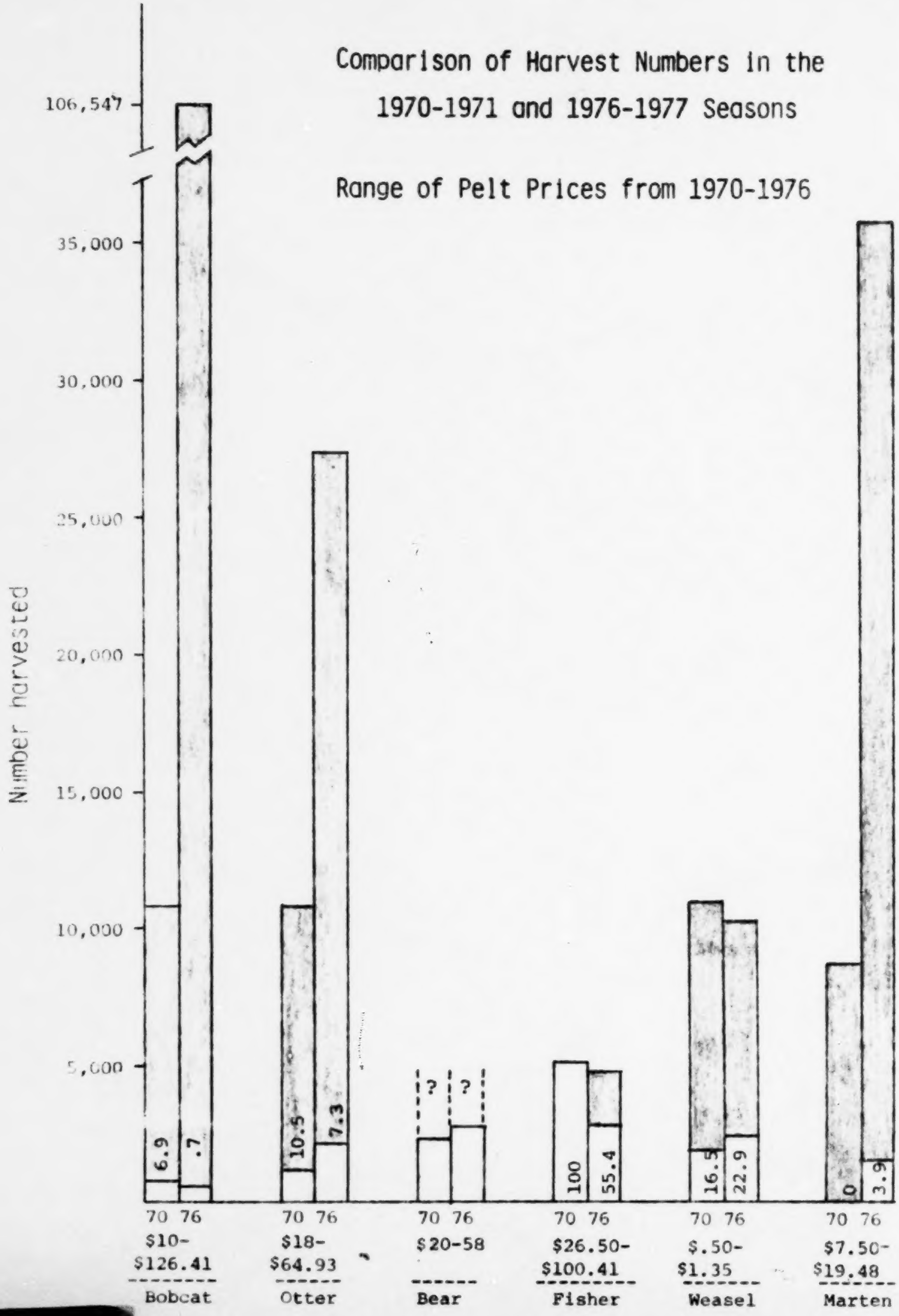


Figure 2a

Comparison of Harvest Numbers in the 1970-1971 and 1976-1977 Seasons

Range of Pelt Prices from 1970-1976



AVAILABLE COPY

TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Bobcat Lynx rufus	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	NR	NR	CS	CS	CS	CS	CS	CS	CS
Delaware	X	X	X	X	X	X	X	X	X	X
Maine	730	654	641	573	544	373	436	389	(280)	
Maryland	NR	NR	NR	NR	NR	NR	NR	CS	CS	CS
Massachusetts	NR	NR	NR	9	8	11	13 (14)	19	(29)	
New Hampshire	10	22	40	55	33	38	89	CS	CS	CS
New Jersey	CS	CS	CS	CS	CS	63*	CS	CS	CS	CS
New York	?	?	?	161**	?	?	? (NR)	90	159	
Pennsylvania	NR	NR	NR	NR	NR	NR	NR (84)	CS	CS	CS
Rhode Island	NR	NR	NR	NR	NR	NR	NR	CS	CS	CS
Vermont	NR	NR	NR	NR	NR	85	82 (84)	92	59	
Total	740	676	681	637	585	570	620 (707)	590 (590)	(527)	
% of country	6.9	7.2	4.5	2.2	1.9	1.5	.9 (.9)	.7 (.7)	(.6)	
Avg. pelt price	$10.00	30.00	46.00	55.00	55.00	125.00	125.00	126.41		

* Probable error. New Jersey indicates season was closed. Not included in total.

** Reported in Federal Register March 1978 II. Not reported by New York. Not included in total.

Figures in brackets are from Endangered Species Scientific Authority data and are given only when differing from International Association of Fish and Wildlife Agencies' and state wildlife agencies' data.

Figure 3a

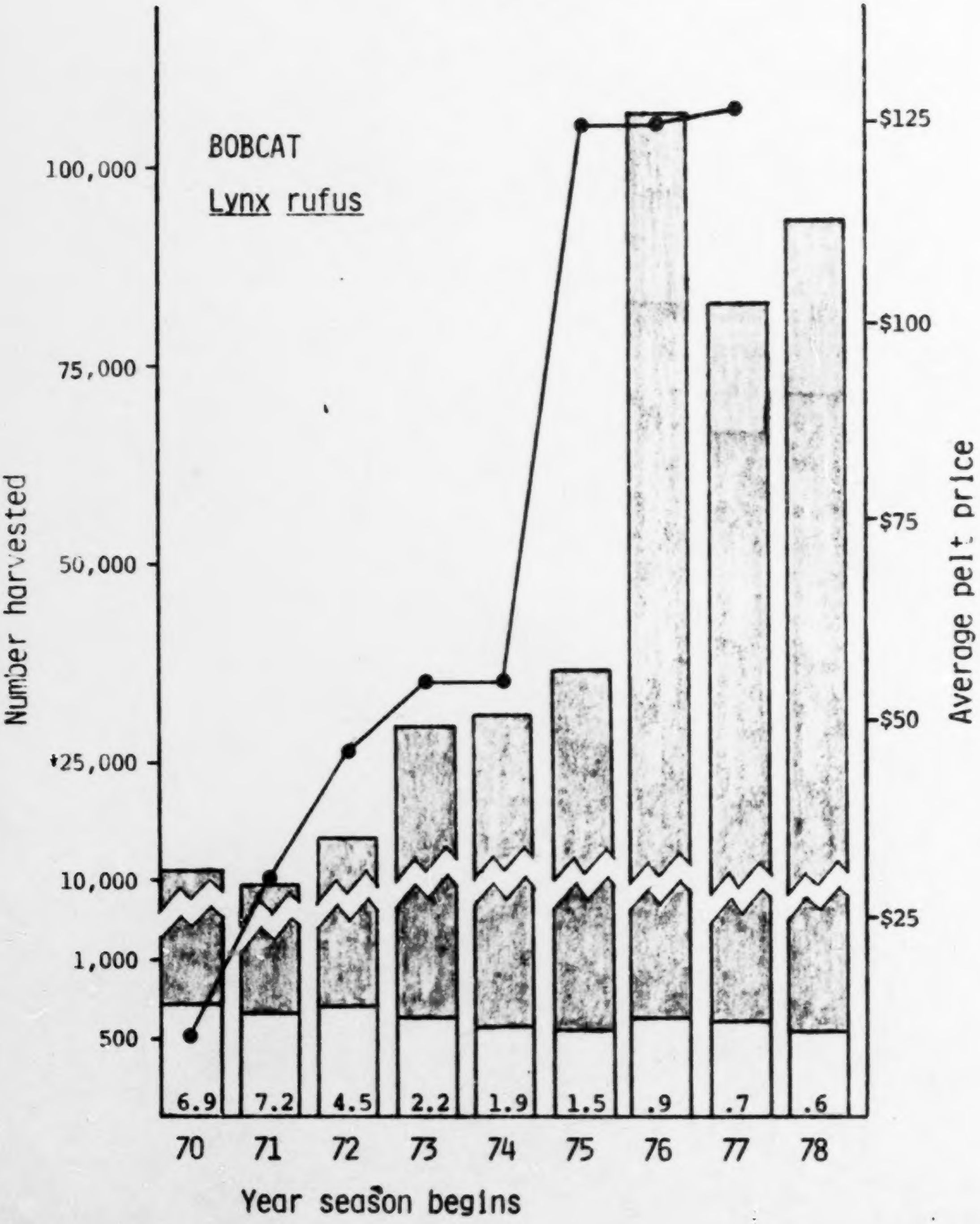

BOBCAT
Lynx rufus
Number harvested
100,000
75,000
50,000
25,000
10,000
1,000
500
Average pelt price
$125
$100
$75
$50
$25
6.9
7.2
4.5
2.2
1.9
1.5
.9
.7
.6
70
71
72
73
74
75
76
77
78
Year season begins

TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Otter *Lutra canadensis*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	14	7	7	13	14	10 (61)	63	74	
Delaware	30	25	25	25	25	25	50 (56)	62 (70)	(45)	
Maine	588	637	593	871	1007	898	531 (898)	675	(693)	
Maryland	131	360	218	208	141	130	182 (181)	191 (187)	262	
Massachusetts	76	53	71	66	66	103	108 (110)	163	121	
New Hampshire	135	157	208	186	170	181	205	236	206	
New Jersey	CS	CS	CS	CS	CS	CS	CS	CS	CS	
New York	171	329	413	405	496	533	636 (633)	507 (467)	(677)	
Pennsylvania	NR	NR	NR	NR	NR	NR	NR	CS	CS	
Rhode Island	4	1	CS	CS	CS	CS	34	25 (15)	25	
Vermont	NR	NR	11	27	28	27	45	42	76	
Total	1135	1576	1546	1795	1946	1911	1801 (2223)	1964 (1918)	(2179)	
% of country	10.5	10.5	8.2	11.2	12.0	11.4	5.4 (5.5)	7.3 (7.1)	(7.3)	
Avg. pelt price	$18.00	25.00	35.00	32.00	31.00	50.00	53.00	64.93		

Figures in brackets are from Endangered Species Scientific Authority data and are given only when differing from International Association of Fish and Wildlife Agencies' and state wildlife agencies' data.

Figure 3b

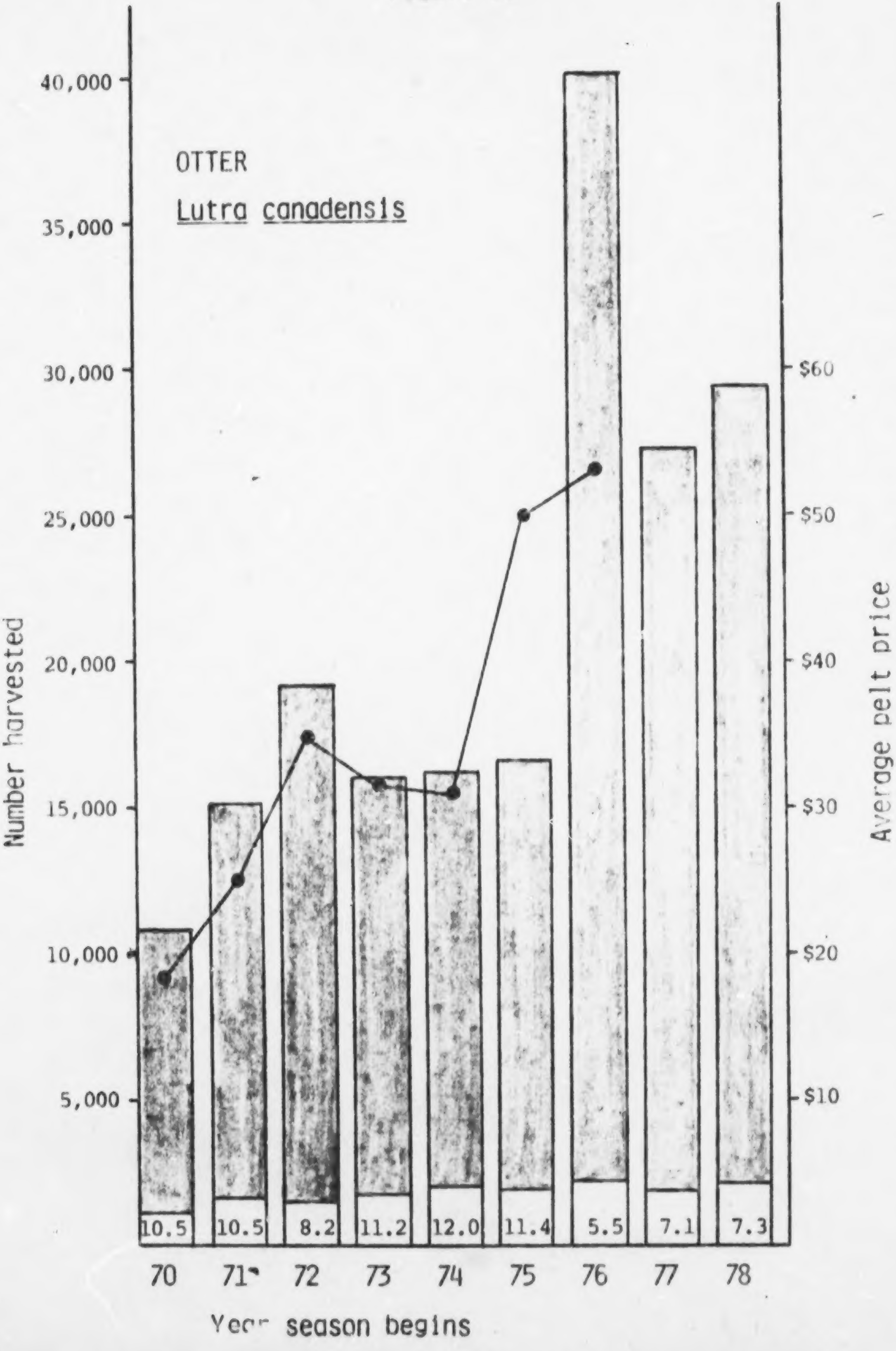

OTTER
Lutra canadensis
Number harvested
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
Average pelt price
$60
$50
$40
$30
$20
$10
10.5
10.5
8.2
11.2
12.0
11.4
5.5
7.1
7.3
70
71
72
73
74
75
76
77
78
Year season begins

TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Fisher *Martes pennanti*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	X	X	X	X	X	X	X	X	X	X
Delaware	X	X	X	X	X	X	X	X	X	X
Maine	3524	1641	2546	2196	2118	1918	1407	2022		
Maryland	NR	NR	NR	NR	NR	NR	NR	NR		
Massachusetts	CS	CS	NR	13	6	1	17	37		
New Hampshire	566	1130	1008	740	456	238	277	CS	CS	709+
New Jersey	X	X	X	X	X	X	X	X	X	X
New York	918	869	1008	1299	1210	1691	839	NR		
Pennsylvania	X	X	X	X	X	X	X	X	X	X
Rhode Island	NR	NR	CS?	CS?	CS	CS	CS	CS	CS	CS
Vermont	NR	NR	NR	NR	250	353	NR	612		
Total	5008	3640	4562	4248	4040	4201	2540	2671		
% of country	100	100	99.9	99.9	99.9	99.9	87.8	55.4		
Avg. pelt price	$26.50	37.00	27.00	57.00	57.00	81.00	95.00	100.41		

Marten *Martes americana*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	X	X	X	X	X	X	X	X	X	X
Delaware	X	X	X	X	X	X	X	X	X	X
Maine	CS	CS	CS	157	249	CS	481	1401		
Maryland	X	X	X	X	X	X	X	X	X	X
Massachusetts	X	X	X	X	X	X	X	X	X	X
New Hampshire	CS	CS	CS	CS	CS	1	CS	CS	CS	CS
New Jersey	X	X	X	X	X	X	X	X	X	X
New York	CS	CS	CS	CS	CS	CS	CS	CS	46	60
Pennsylvania	X	X	X	X	X	X	X	X	X	X
Rhode Island	X	X	X	X	X	X	X	X	X	X
Vermont	X	X	X	X	X	X	X	X	X	X
Total	0	0	0	157	249	0	481	1401	46	60
% of country	0	0	0	.8	1.9	0	1.7	3.9		
Avg. pelt price	$ 8.00	9.00	12.00	13.00	7.50	15.00	14.00	19.48		

Figure 3c

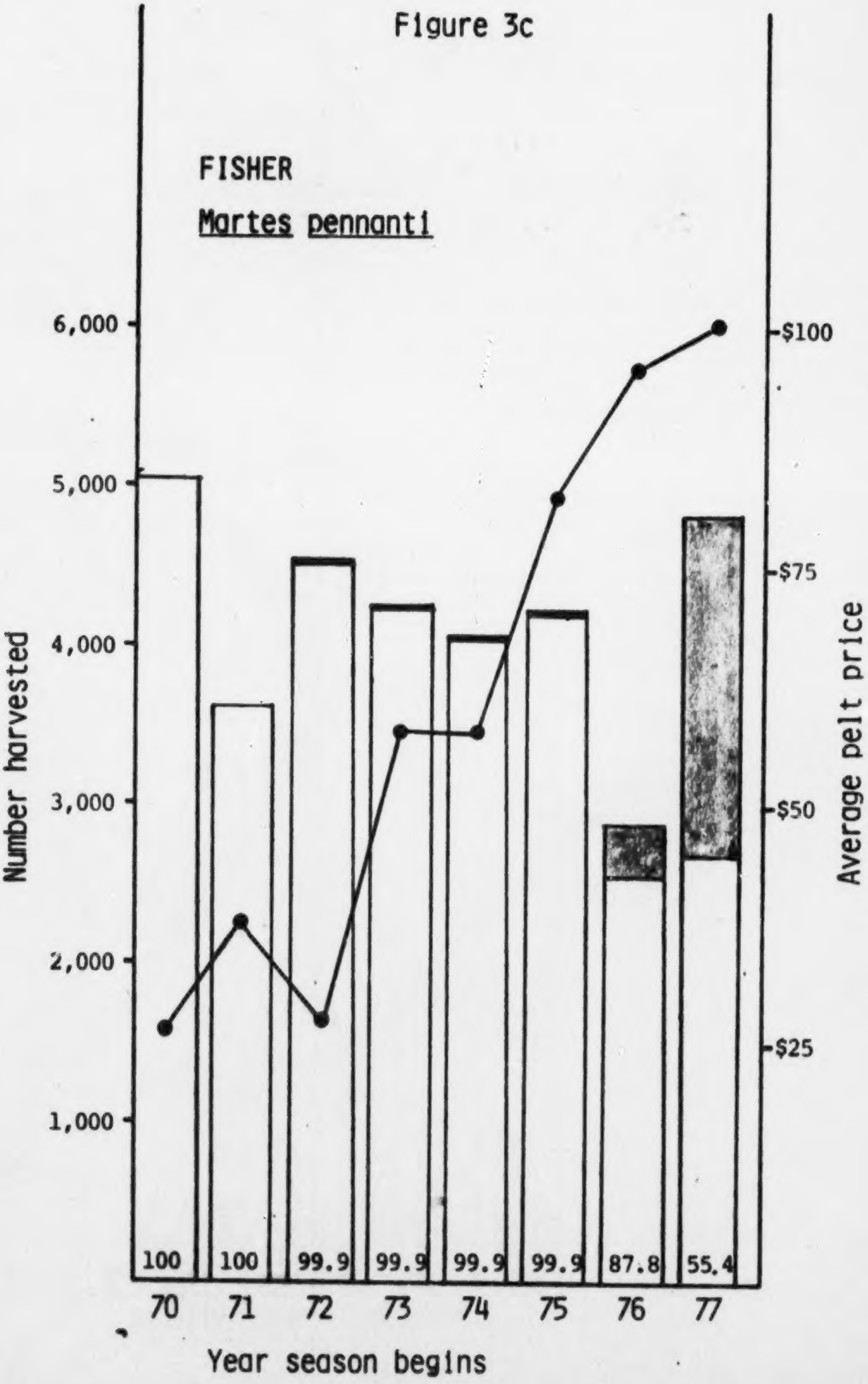

FISHER
Martes pennanti
6,000
5,000
4,000
3,000
2,000
1,000
Number harvested
$100
$75
$50
$25
Average pelt price
100
100
99.9
99.9
99.9
99.9
87.8
55.4
70
71
72
73
74
75
76
77
Year season begins

Figure 3d

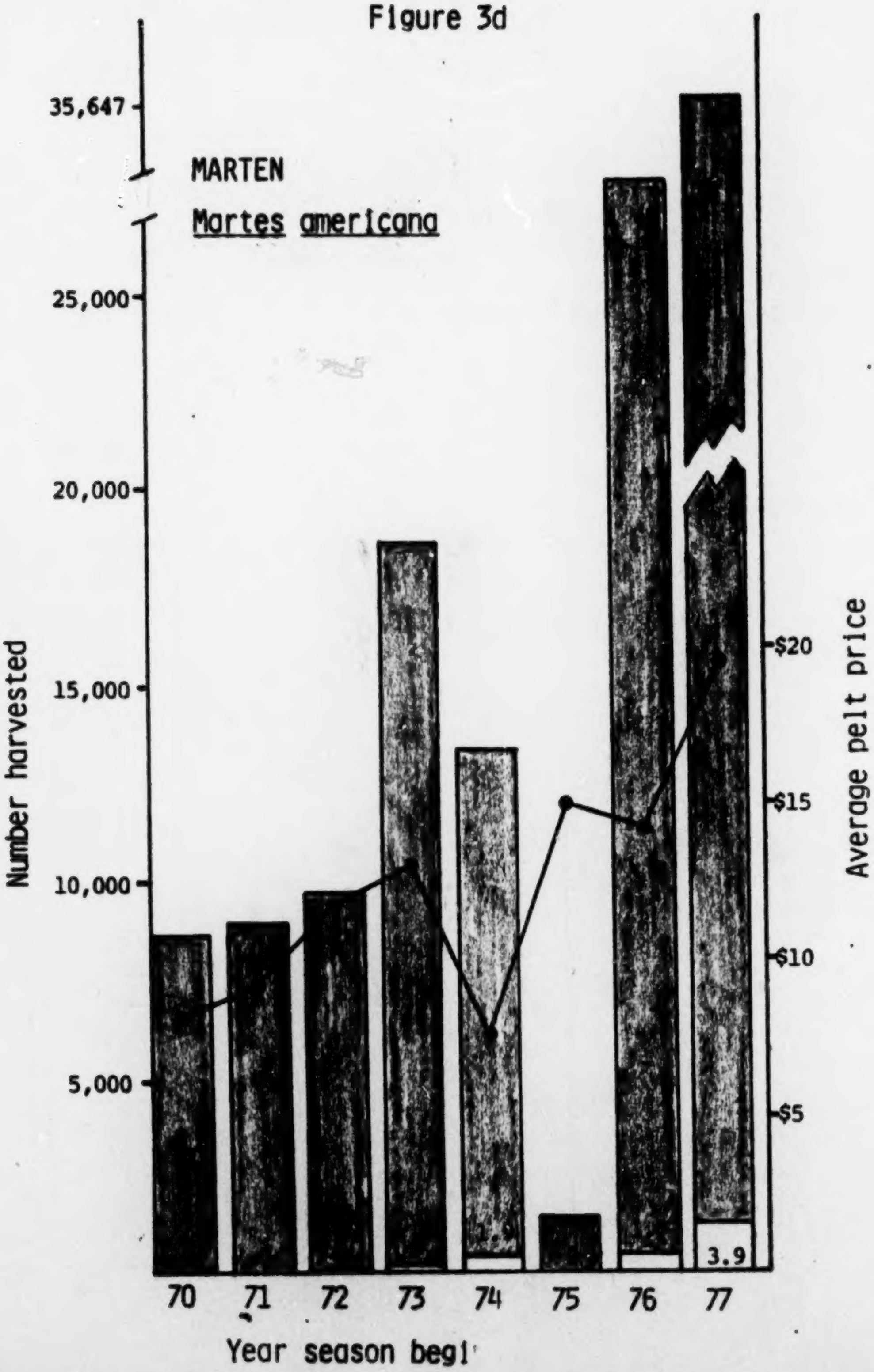

35,647
MARTEN
Martes americana
25,000
20,000
15,000
10,000
5,000
Number harvested
$20
$15
$10
$5
Average pelt price
3.9
70
71
72
73
74
75
76
77
Year season begi

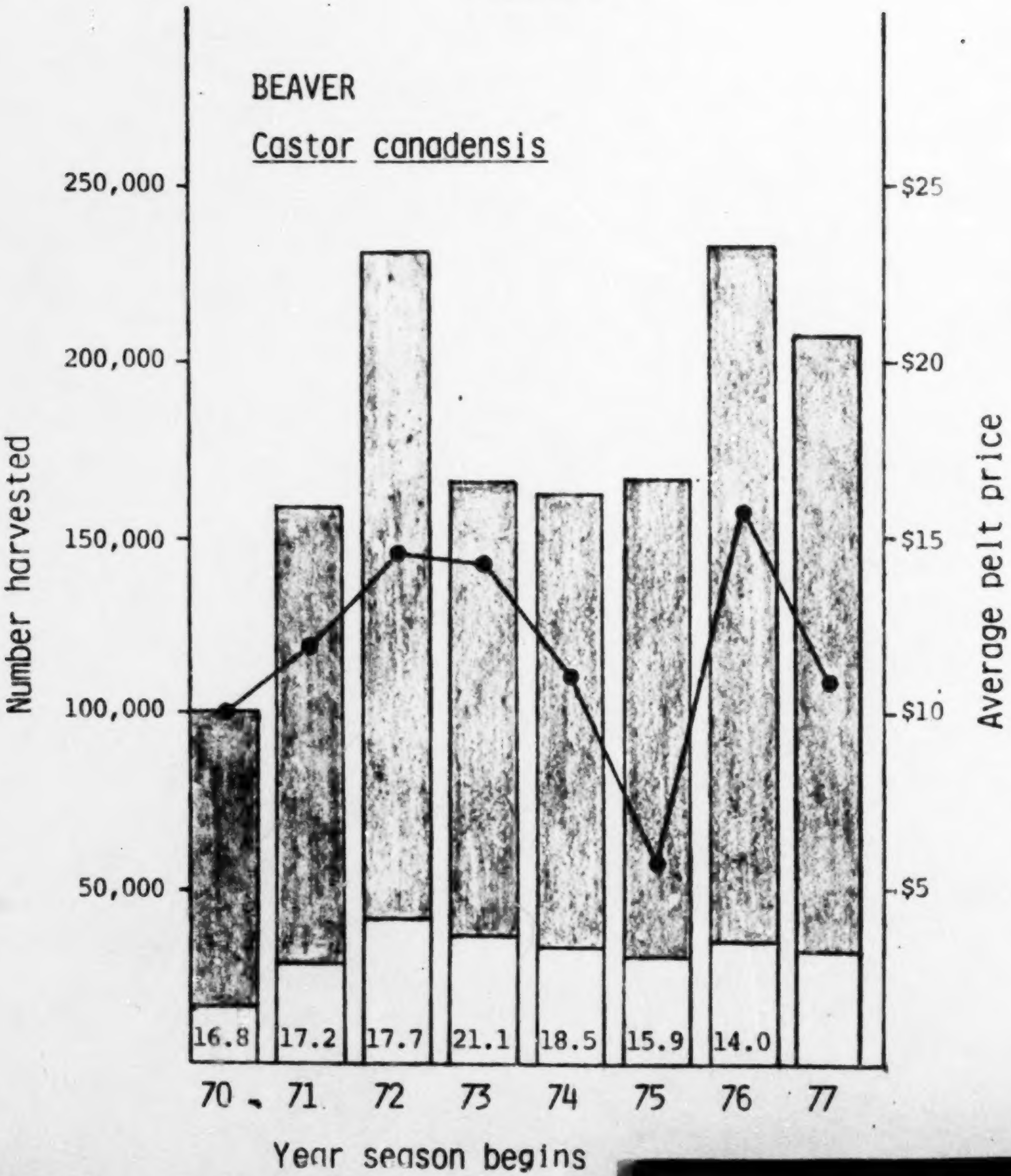
TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Beaver *Castor canadensis*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	259	433	499	516	516	56	321	427		
Delaware	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
Maine	6288	10,895	11,054	12,804	11,303	8595	9632	11,182		
Maryland	69	181	313	224	178	158	177	153		
Massachusetts	509	1358	1674	1639	1441	1135	1558	1066		
New Hampshire	2771	3106	4770	4885	4109	4328	4020	3935	4085	
New Jersey	NR	NR	NR	NR	NR	NR	116	121		
New York	2840	5647	12,417	7492	8166	10,444	12,178	6636		
Pennsylvania	2528	3382	5845	5482	3130	3779	3292	1110		
Rhode Island	NR	NR	CS?	CS?	CS	CS	CS	CS	CS	CS
Vermont	1565	2758	3706	2627	1999	1396	1401	2433		
Total	16,829	27,760	40,278	35,669	30,842	29,891	32,695	27,063		
% of country	16.8	17.2	17.7	21.1	18.5	15.9	14.0	13.1		
Avg. pelt price	$10.00	12.00	14.00	13.50	11.00	6.00	16.00	10.93		

Coyote *Canis latrans*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	NR	NR	NR	NR	NR	NR	NR		
Delaware	X	X	X	X	X	X	X	X	X	X
Maine	NR	NR	NR	77	190	NR	320	379		
Maryland	NR	NR	NR	NR	NR	NR	NR	NR		CS
Massachusetts	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
New Hampshire	NR	NR	13	17	35	43	82	60	124	
New Jersey	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
New York	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Pennsylvania	X	X	X	X	X	X	X	X	X	X
Rhode Island	NR	NR	CS?	CS?	CS	CS	CS	CS	CS	CS
Vermont	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Total	0	0	13	94	225	43	402	439		
% of country	0	0	.02	.08	.13	.02	.13	.12		
Avg. pelt price	$13.00	18.00	20.50	17.00	17.00	45.00	45.00	45.00		

Figure 3e



BEST AVAILABLE COPY

BEST AVAILABLE COPY

TABLE 3

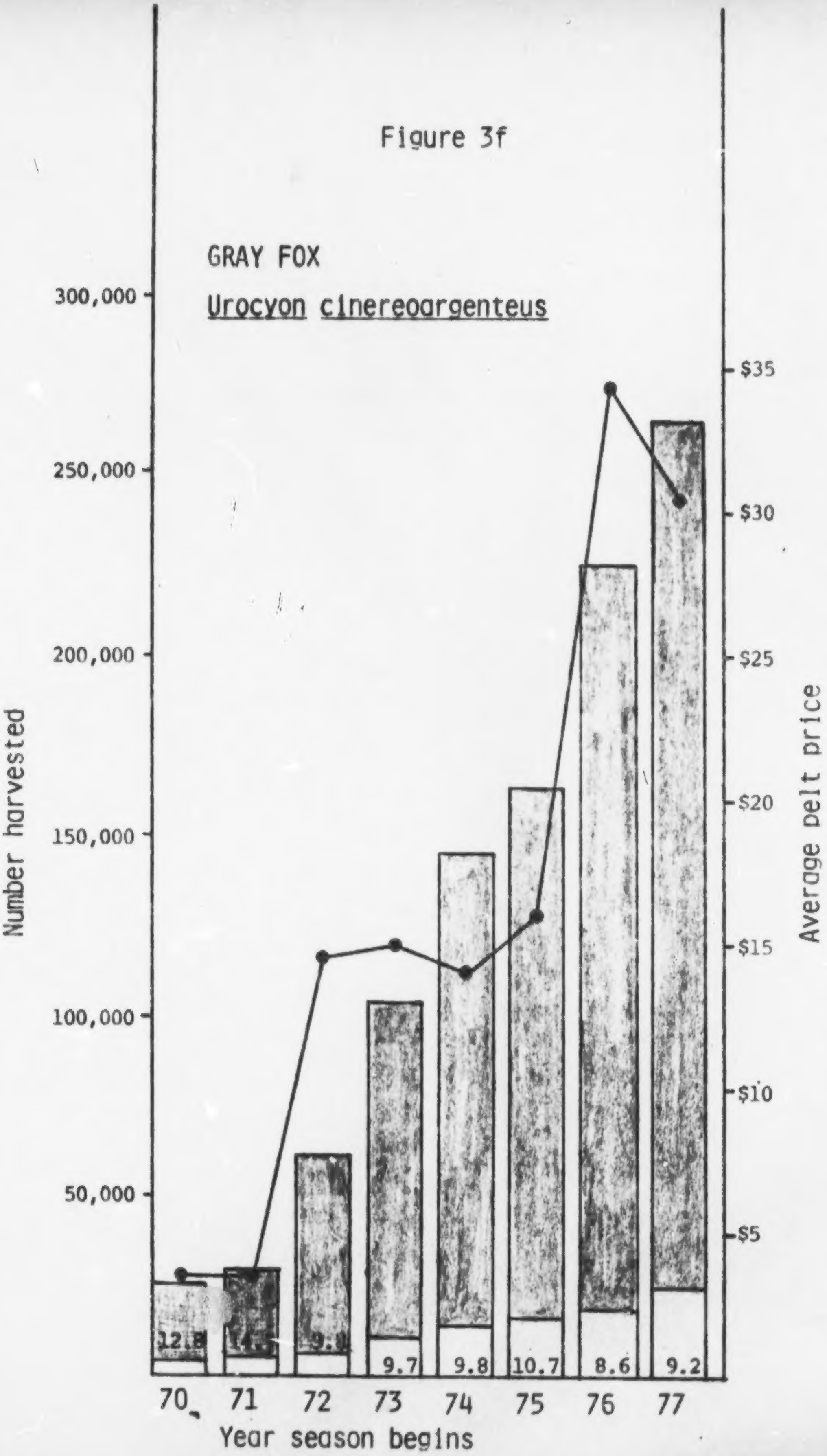
HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Gray Fox *Urocyon cinereoargenteus*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	NR	NR	NR	NR	10 *	I	I		
Delaware	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Maine	I	I	I	I	I	I	I	I	I	I
Maryland	182	490	333	878	2586	2424	2030	1780		
Massachusetts	54	55	157	199	285	175	254	300		
New Hampshire	NR	135	133	127	124	136	198	168	133	
New Jersey	NR	NR	NR	NR	NR	2063	2817	5300		
New York	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	3101	3703	5328	9362	11,401	12,742	13,954	16,786		
Rhode Island	I	I	I	I	I	I	56	24		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Total	3337	4383	5951	10,566	14,396	17,550	19,309	24,358		
% of country	12.8	14.9	9.8	9.7	9.8	10.7	8.6	9.2		
Avg. pelt price $	3.50	3.50	14.00	15.00	13.00	17.00	34.00	30.96		

* Report required only if taken on state owned lands. Actual total manyfold more.

Red Fox *Vulpes fulva*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	53	89	69	56	37	41	1860		
Delaware	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
Maine	1036	1695	2295	5472	6402	6853	5203	6529		
Maryland	362	600	496	1108	4654	4620	3928	4318		
Massachusetts	154	225	341	495	487	342	453	620		
New Hampshire	247	176	315	819	847	985	1163	1354	1602	
New Jersey	NR	NR	NR	NR	NR	3989	3693	6100		
New York	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	4637	4441	5840	10,073	11,114	12,120	16,527	19,426		
Rhode Island	43	14	49	26	42	51	129	24		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Total	6479	7204	9425	18,062	23,602	28,997	31,164	40,231		
% of country	4.2	4.7	5.0	6.4	9.9	10.7	8.7	12.9		
Avg. pelt price	$12.00	17.00	25.00	36.00	30.00	30.00	48.00	62.63		

Figure 3f



BEST AVAILAB

Figure 3g

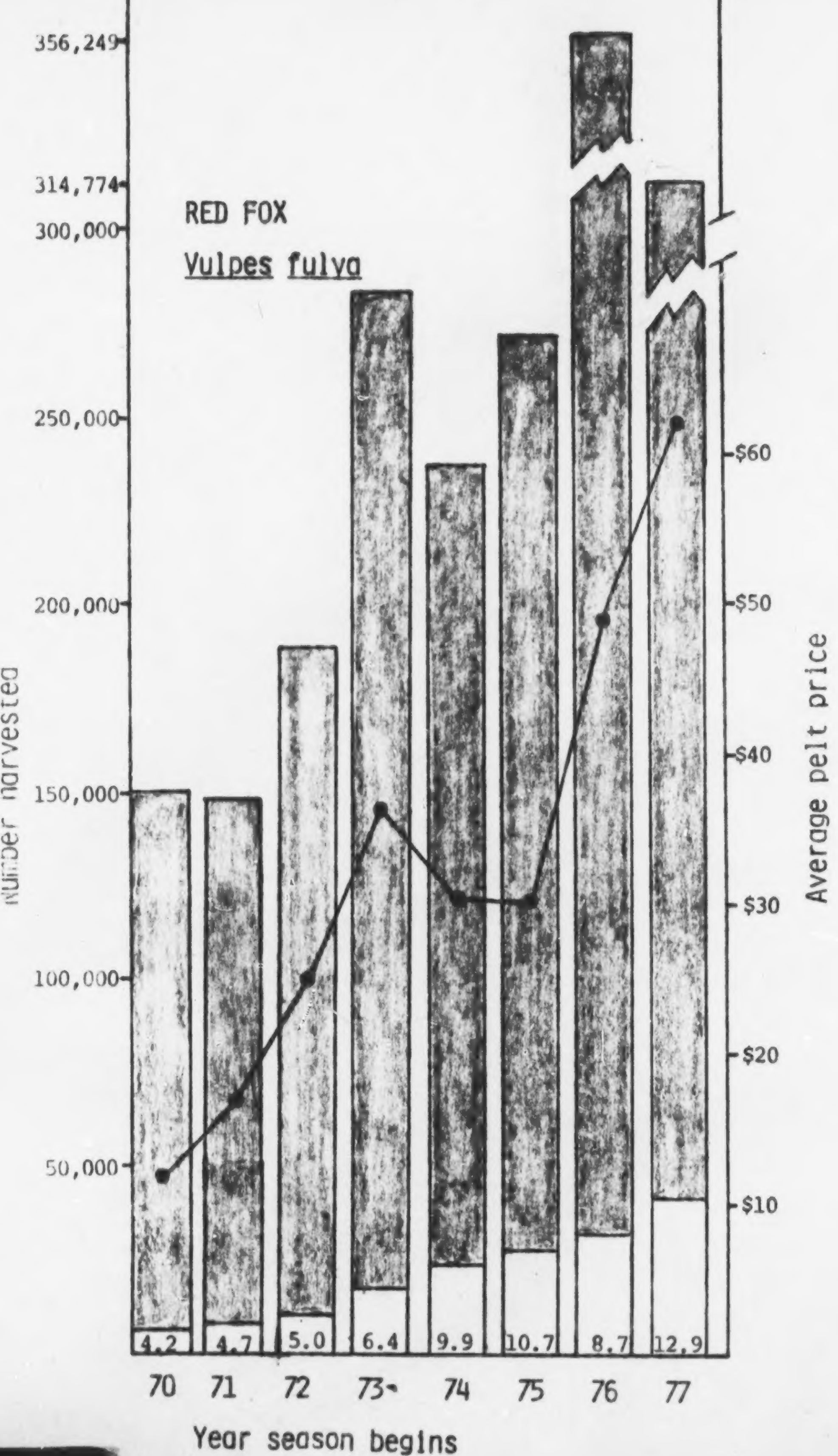

356,249
314,774
300,000
250,000
200,000
150,000
100,000
50,000
Number harvested
RED FOX
Vulpes fulva
$60
$50
$40
$30
$20
$10
Average pelt price
4.2
4.7
5.0
6.4
9.9
10.7
8.7
12.9
70
71
72
73
74
75
76
77
Year season begins

TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Muskrat *Ondatra zibethica*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	2344	3041	2401	2867	2385	1668	NR		
Delaware	50,000	70,000	55,965	72,300	92,748	54,100	42,570	52,144		
Maine	26,967	29,460	NR	64,753	76,048	49,628	34,750	NR		
Maryland	114,971	277,608	160,284	178,494	259,421	376,036	417,400	183,108		
Massachusetts	51,314	42,679	44,186	71,930	66,247	44,998	47,085	49,804		
New Hampshire	6538	5672	7702	10,125	11,570	7800	8997	12,002	14,355	
New Jersey	NR	NR	NR	NR	NR	654,436	486,017	432,000		
New York	NR	NR	NR	NR	1,237,965	911,133	669,174	≈850,000	≈850,000	
Pennsylvania	310,311	385,245	394,863	458,677	494,272	407,732	354,929	412,058		
Rhode Island	5259	2185	1553	1976	1542	2561	3241	2656		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR		
Total	565,360	815,193	667,594	860,656	2,242,680	2,510,809	2,065,831	1,993,772		
% of country	13.0	19.7	14.5	13.9	40.6	39.1	28.9	32.1		
Avg. pelt price $	1.40	2.25	3.00	3.00	3.00	3.50	4.75	5.40		

Raccoon *Procyon lotor*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	224	287	211	303	248	324	NR		
Delaware	5000	5000	6154	6428	4083	2500	10,304	10,347		
Maine	23,000	25,000	50,693	7503	9728	7291	7700	24,069		
Maryland	5290	18,222	13,604	17,786	33,408	43,752	47,243	26,458		
Massachusetts	3694	2267	3450	5254	5278	5572	8053	13,924		
New Hampshire	577	859	2011	2348	2568	1978	2049	2423	2927	
New Jersey	NR	NR	NR	NR	NR	23,153	29,861	37,000		
New York	NR	NR	NR	NR	NR	NR	NR	NR		
Pennsylvania	40,941	47,651	82,123	131,849	148,123	185,299	179,543	223,132		
Rhode Island	319	115	120	229	181	234	520	153		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR		
Total	78,821	99,338	158,442	171,608	203,672	270,027	285,597	337,506		
% of country	7.2	7.4	8.3	6.5	7.0	8.4	7.5	8.9		
Avg. pelt price $	3.50	6.50	10.00	15.00	12.00	19.00	26.00	23.32		

TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Opossum	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Didelphis virginiana										
Connecticut	NR	NR	NR	NR	NR	43	NR	NR		
Delaware	600	500	NR	NR	NR	NR	NR	NR		
Maine	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
Maryland	397	1383	1531	3544	8950	10,976	9948	4670		
Massachusetts	33	47	127	288	611	586	514	420		
New Hampshire	NR	NR	NR	NR	NR	NR	NR	NR	NR	
New Jersey	NR	NR	NR	NR	NR	20,422	15,615	22,000		
New York	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Pennsylvania	6200	9223	24,454	56,461	76,776	73,297	95,629	68,416		
Rhode Island	32	5	73	29	62	63	110	71		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Total	7262	11,153	26,185	60,322	86,399	105,387	121,816	95,577		
% of country	7.2	8.5	10.4	12.1	11.9	14.4	11.4	10.1		
Avg. pelt price $	.85	2.50	3.00	2.50	2.50	2.50	2.50	2.35		

Mink	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Mustela vison										
Connecticut	NR	67	67	76	87	51	35	NR		
Delaware	NR	35	50	50	50	50	NR	NR		
Maine	35	2529	NR	2420	4349	4449	2790	NR		
Maryland	NR	310	142	358	737	556	447	368		
Massachusetts	509	601	523	680	1172	852	808	1196		
New Hampshire	420	337	366	665	776	621	652	949	777	
New Jersey	NR	NR	NR	NR	NR	593	1022	1900		
New York	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Pennsylvania	3378	4053	4261	5646	5625	4870	4852	4596		
Rhode Island	175	61	32	143	95	79	144	62		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Total	4517	7993	5441	10,038	12,891	12,121	10,750	9071		
% of country	2.9	5.6	2.8	3.7	5.1	5.2	3.4	3.6		
Avg. pelt price $	7.50	9.50	12.00	11.50	8.00	10.00	14.00	12.00		

TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARERS (1970-1979)

Striped Skunk *Mephitis mephitis*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	NR	NR	8	6	2	1	NR		
Delaware	500	1000	NR	NR	NR	NR	NR	NR	NR	
Maine	NR	311	167	734	992	1017	1000	NR		
Maryland	29	166	51	141	557	334	390	238		
Massachusetts	14	NR	19	55	349	36	84	102		
New Hampshire	34	25	102	151	239	262	420	489	499	
New Jersey	NR	NR	NR	NR	NR	3292	2282	4500		
New York	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Pennsylvania	933	1271	2460	4731	4898	4257	3727	4955		
Rhode Island	19	43	31	28	23	28	54	62		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Total	1529	2816	2830	5848	7064	9228	7958	10346		
% of country	7.2	17.1	8.3	9.6	8.8	11.9	4.6	6.0		
Avg. pelt price $	1.00	2.50	2.75	3.00	1.50	1.50	2.25	3.31		

Long-tailed Weasel *Mustela frenata*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	NR	7	7	4	11	2	1	NR		
Delaware	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Maine	1210	887	NR	632	734	738	364	NR		
Maryland	21	28	18	55	155	92	57	45		
Massachusetts	30	NR	8	34	38	33	7	8		
New Hampshire	117	108	125	164	173	120	59	96	57	
New Jersey	NR	NR	NR	NR	NR	351	393	700		
New York	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Pennsylvania	396	451	674	1392	1764	1571	1294	1452		
Rhode Island	10	8	3	13	11	4	16	2		
Vermont	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Total	1784	1489	835	2294	2886	2911	2191	2303		
% of country	16.5	42.4	18.4	31.9	33.2	41.5	16.4	22.9		
Avg. pelt price $	.60	.50	.50	.50	.50	.90	1.00	1.35		

TABLE 3

HARVEST NUMBERS OF NORTHEASTERN FURBEARS (1970-1979)

Black Bear *Euractos americanus*	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Connecticut	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS
Delaware	X	X	X	X	X	X	X	X	X	X
Maine	970	989	786	1066	744	947	1008	1066	1320	1630
Maryland	?	?	?	?	?	?	?			CS
Massachusetts	4	0	1	0	2	3	3	0	5	3
New Hampshire	293	334	273	356	280	326	≈225	≈225	≈225	271
New Jersey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
New York	725	458	435	522	446	491	525	537	597	676
Pennsylvania	?	?	?	?	?	?	?	?	?	?
Rhode Island	X	X	X	X	X	X	X	X	X	X
Vermont	243	322	237	171	227	149	263	?	?	?
Total	2235	2103	1732	2115	1699	1916	≈2024	≈1828	≈2147	2580
% of country	?	?	?	?	?	?	?	?	?	?
Avg. pelt price	$20.00	25.50	58.00	53.00	53.00	44.00	44.00			

Source: International Association of Fish and Wildlife Agencies, 1976; State Wildlife Agencies, pers. comm., 1980; Endangered Species Scientific Authority records, 1980.